



For Reference
Not to be taken
from this library



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY



TWELFTH ANNUAL REPORT



1976

TABLE OF CONTENTS

PART I. REPORT OF THE BOARD OF DIRECTORS

	PAGE
Letter of Transmittal.....	1
Statement of Net Cost of Service, Express and Local.....	2
Highlights of 1976.....	3
Statistics for 1976.....	7
Organization Chart.....	8
Reports from the Departments.....	9
Executive Office.....	9
Operations Directorate.....	10
Construction Directorate.....	13
Federal Grants and Loans, 1976 (Table).....	15
Federal Grants and Loans, 1965-1976 (Bar Graph).....	16
Federal Grants and Loans 1965-1976 (Table).....	17
Community Affairs and Marketing.....	18
Police Department.....	20
Office of Safety.....	21
Personnel Directorate.....	22
Office of the Treasurer-Controller.....	24
Materials Directorate.....	25
Office of the General Counsel.....	26
1976 Legislation.....	26
1977 Legislative Program.....	27
Where the Riders Are.....	29
The Public Transportation Deficit: A Brief History.....	30
MBTA Assessment Procedures.....	31
Comprehensive Program for Mass Transportation.....	33

PART II. FINANCIAL STATEMENTS

An Explanation of Accounting Methods
Financial Statements

COVER: New and rebuilt passenger equipment placed in service in 1976.
Upper left - Rebuilt President's Conference Committee (PCC) Street-car #3072. Upper right - Western Flyer Trackless Trolley Car.
Center - Boeing-Vertol Light Rail Vehicle. Lower left - AM General Bus. Lower right - Fiat Commuter Railroad Car.



**MASSACHUSETTS
BAY
TRANSPORTATION
AUTHORITY**

45 High Street, Boston, Mass. 02110

March 31, 1977

His Excellency the Governor,
The General Court, The Secretary of Transportation and
The Advisory Board to the
Massachusetts Bay Transportation Authority

The Directors of the Massachusetts Bay Transportation Authority, in accordance with the requirements of Section 5(h) of Chapter 161A of the General Laws, herewith render the twelfth report of the Authority covering operations for the calendar year 1976.

SUMMARY OF THE NET COST OF SERVICE JANUARY 1, 1976 - DECEMBER 31, 1976

The Authority's net assessable cost of service to the 79 cities and towns, which will be assessed to them in November, 1977, was \$125,870,493.72 as of this date. It must be noted that this amount could be reduced -- to \$68,920,493.72 -- by additional state aid of \$56,950,000 which is awaiting action (House Bill No. 1) by the General Court. Such additional state aid was received in 1973, 1974 and 1975.

Total income in 1976 amounted to \$60,449,410.19 and total current expenses were \$223,225,625.05 leaving a cost of service in excess of income of \$162,776,214.86.

The difference between the cost of service in excess of income and the net assessable cost of service resulted from state reimbursement for the Authority's debt service; additional state aid for the railroad communities outside the MBTA district; the unreimbursed deficit; the depreciation, amortization and interest on the Penn Central loan; and Federal Operating Assistance of \$16,868,565.

In addition to the net assessable cost of service, there are two other items which must be considered by the 79 cities and towns in their settlement in November, 1977 of their 1976 accounts with the Commonwealth. These are the accounts:

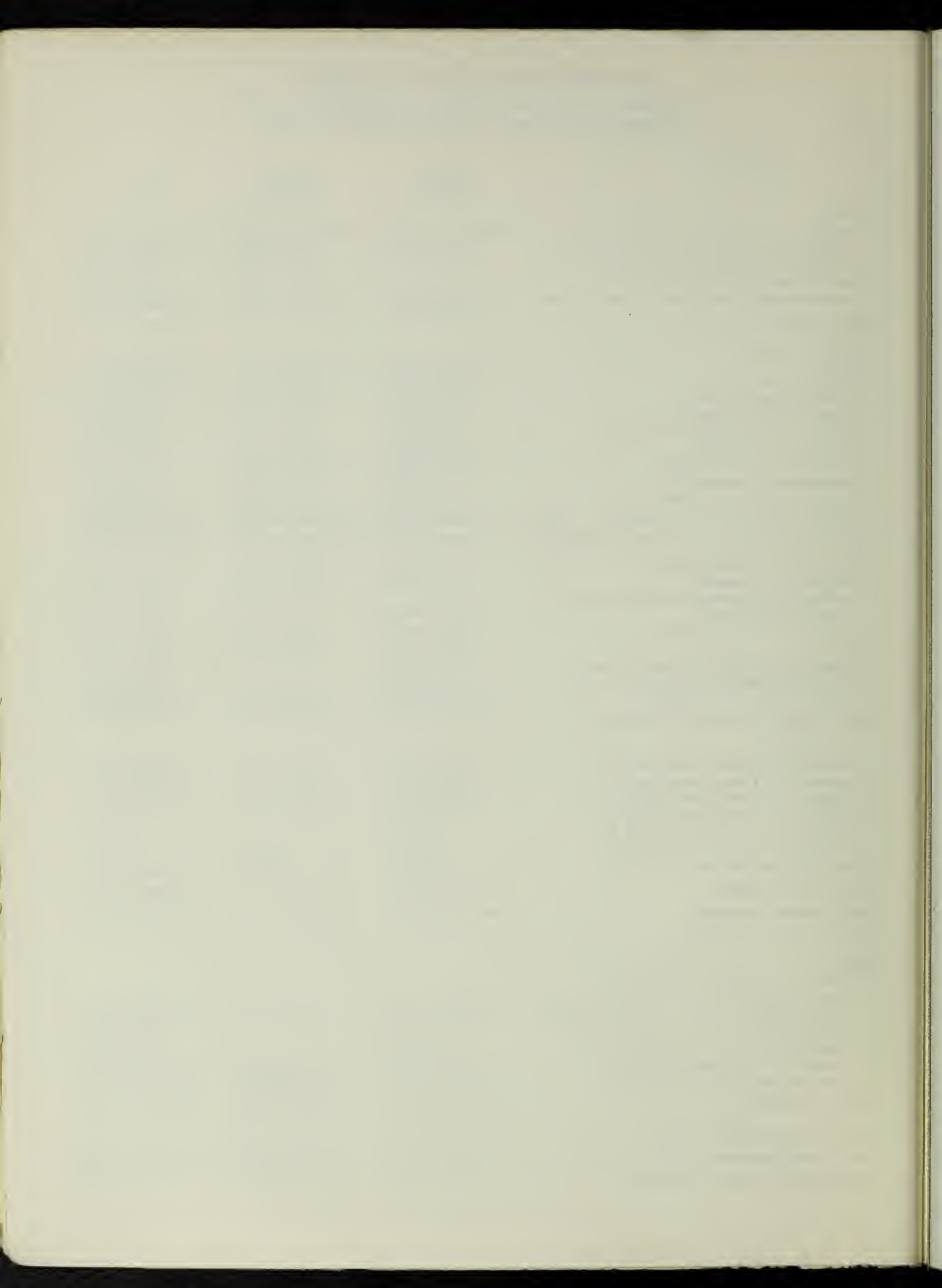
	WITHOUT ADDITIONAL STATE AID	WITH ADDITIONAL STATE AID OF \$56,950,000 AS PROVIDED IN HOUSE BILL NO. 1
Net Assessable Cost of Service	\$125,870,493.72	\$68,920,493.72
Interest Charged by State Treasurer on Temporary Borrowings (Estimated)	\$ 8,500,000.00	\$ 8,500,000.00
Expenses of Boston Metro- politan District	<u>\$ 16,000.00</u>	<u>\$ 16,000.00</u>
Net Cost to Communities	\$134,386,493.72	\$77,436,493.72 *

*House Bill No. 1, the state budget for Fiscal Year 1978 beginning July 1, 1977, provides additional contract assistance of \$56,950,000, subject to legislative approval and appropriation.

The following page shows the Authority's net cost of service including all elements of cost for calendar year 1976 and the apportionment of these costs by express and local service.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
STATEMENT OF NET COST OF SERVICE - BY EXPRESS AND LOCAL
CALENDAR YEAR JANUARY 1, 1976 TO DECEMBER 31, 1976

	<u>Express Service</u>	<u>Local Service</u>	<u>Total</u>
Income:			
Revenue from Transportation	\$26,042,569.99	\$27,079,745.41	\$53,122,315.40
Revenue from Other Rwy. Operations	1,481,323.73	475,425.67	1,956,749.40
Non-Operating Income	3,306,941.22	606,376.09	3,913,317.31
Gas & Diesel Tax Reimbursement	-	405,130.91	405,130.91
Reimbursement from Outside Communities	305,053.17	746,844.00	1,051,897.17
TOTAL INCOME	31,135,888.11	29,313,522.08	60,449,410.19
Operating Wages and Fringe Benefits:			
Wages	52,890,774.85	57,288,267.94	110,179,042.79
M.B.T.A. Pensions	7,006,058.56	7,565,366.15	14,571,424.71
Social Security Taxes	2,608,205.49	2,825,555.95	5,433,761.44
Workmen's Compensation	909,883.68	947,021.78	1,856,905.46
Accident and Sickness Insurance	210,473.70	219,064.47	429,538.17
Group Life Insurance	441,993.88	460,034.45	902,028.33
Blue Cross - Blue Shield	4,769,451.02	4,964,122.49	9,733,573.51
Unemployment Insurance	111,699.42	116,258.58	227,958.00
Uniform and Work Clothes	84,314.90	176,259.29	260,574.19
Fringe Benefit Cost Capitalized - Credit	(1,023,279.78)	(1,065,046.31)	(2,088,326.09)
TOTAL OPERATING WAGES AND FRINGE BENEFITS	68,009,575.72	73,496,904.79	141,506,480.51
Material and Other Items	9,417,812.47	8,534,545.77	17,952,358.24
Injuries and Damages	617,451.66	1,890,711.89	2,508,163.55
Depreciation/Amortization/Interest on			
Penn Central Loan	(1,112,386.65)	161,878.74	(950,507.91)
Interest on Unfunded Debt	1,486,828.65	1,216,496.65	2,703,325.30
Fuel	7,849,578.88	3,946,241.59	11,795,820.47
Taxes (Other than included above)	88,026.30	704,776.12	792,802.42
Railroad Commuter Subsidy	17,654,431.12	-	17,654,431.12
Rapid Transit Inc. Subsidy	-	373,910.15	373,910.15
TOTAL OPERATING EXPENSES AND TAXES	104,011,318.15	90,325,465.70	194,336,783.85
Fixed Charges:			
Interest on Funded Debt (M.T.A.)	2,726,409.56	1,283,016.27	4,009,425.83
Interest on Funded Debt (M.B.T.A.)	12,397,904.74	710,741.90	13,108,646.64
Payment on Funded Debt (M.T.A.)	2,093,168.55	1,127,090.72	3,220,259.27
Payment on Funded Debt (M.B.T.A.)	7,002,000.00	1,499,748.25	8,501,748.25
Cambridge Subway Rental (M.T.A.)	5,933.33	-	5,933.33
Miscellaneous Debits (M.T.A.)	7,750.23	3,647.16	11,397.39
Bank Service Charges (M.B.T.A.)	29,049.77	2,380.72	31,430.49
TOTAL FIXED CHARGES	24,262,216.18	4,626,625.02	28,888,841.20
TOTAL CURRENT EXPENSES	128,273,534.33	94,952,090.72	223,225,625.05
COST OF SERVICE IN EXCESS OF INCOME	97,137,646.22	65,638,568.64	162,776,214.86
Less:			
State Fin. Contract Assistance:			
Chapter 161A of G.L. (Sec.28)-M.T.A.	3,000,000.00	-	3,000,000.00
Chapter 161A of G.L. (Sec.28)-M.B.T.A.	15,973,676.84	1,494,905.13	17,468,581.97
Chapter 859, Acts of 1975-M.B.T.A.	200,332.08	-	200,332.08
Chapter 283, Acts of 1976-M.B.T.A.	318,750.00	-	318,750.00
House Bill #1, Pending Approval	27,778,570.29	29,171,429.71	56,950,000.00
Federal Operating Assistance	9,028,056.00	7,840,509.00	16,868,565.00
TOTAL ASSISTANCE	56,299,385.21	38,506,843.84	94,806,229.05
NET COST OF SERVICE - LOSS	40,838,261.01	27,131,724.80	67,969,985.81
LESS - UNREIMBURSED DEFICIT	(1,112,386.65)	161,878.74	(950,507.91)
NET ASSESSABLE COST OF SERVICE	\$41,950,647.66	\$26,969,846.06	\$68,920,493.72



HIGHLIGHTS OF 1976

The most visible changes in 1976, the 12th year for the Massachusetts Bay Transportation Authority, were new buses, new trackless trolleys, a new commuter rail car, a completely rehabilitated 1944 streetcar, and finally--on December 30 in the midst of a major snow storm--new light rail vehicles.

It was a year of valleys and peaks in carrying passengers. The lowest point came in January, as a result of the 12 days of storms in December, 1975. The peak came in the celebration of the 200th anniversary of American independence as unprecedented crowds took public transportation to see the celebration of July 4th on Boston's Esplanade and to see the Tall Ships in Boston harbor. The Christian Science Monitor, in an article reviewing the year, said: "For those who remembered the December, 1975 snowstorm as one of the MBTA's worst times, one of its best times came about half a year later. Bostonians celebrated America's 200th Fourth of July by going places--to the Tall Ships, to fireworks displays on the Esplanade, to parades, to exhibits, and to follow the visiting Queen Elizabeth II of England. In the space of a few days, the MBTA was asked to carry hundreds of thousands of passengers--in addition to its usual load of commuters and shoppers. To the surprise of many MBTA officials as well as the travelling public, the system held up very well--with no delays, no accidents, no additional crime, and no complaints about MBTA employees."

The performance of the MBTA in the Bicentennial celebration was a coordinated effort of many departments and many employees, and brought a renewed sense of pride to the organization. It was the most public showing of a key achievement in 1976--the development of a management capability to act quickly and in a coordinated way in complex situations.

The principal evidence of that achievement was that for the first time in many years, the MBTA stayed within its budget in 1976. No supplementary budget was submitted. Indeed, more than \$6 million voted by the MBTA Advisory Board was not spent. The underspending was accomplished by improved control over manpower levels, improved management sensitivity to the effect of cost increases, and by outside circumstances which had some favorable impact on the MBTA budget by the end of the year.

However, the budget situation looked grim in February when it was announced in Washington that the Boston cost of living had increased in the three months ending January 31 at a rate 10 times greater than the national average. The impact on the MBTA was estimated to be \$4 million more than was budgeted. It forced a tough decision. Chairman Robert R. Kiley notified union leaders by telegram: "If the Authority is forced to pay the cost-of-living adjustment, the only method available to the Authority to provide such funds is a significant reduction in the number of Authority employees. Although it is personally repugnant to me, particularly in this time of wide-spread employment, such a reduction can be accomplished only by an Authority-wide layoff." The Boston Carmen's Union said it would force payment of the increase, and the issue went to arbitration.

A drastic cut-back in summer transportation service was needed to meet the budget crisis. Using the Service Policy for Surface Transportation, which the Advisory Board had approved December 30, 1975, a concerted effort by the Operations Planning Office in the Operations Directorate and the Service Planning Office in the Community Affairs Directorate closely analyzed how the service cutbacks could best be made. On March 31, an arbitrator ruled that the MBTA was bound by the contract to pay 100 percent of the increase in Boston's cost-of-living. Chairman Kiley announced: "We are forced to pay a quarterly cost-of-living increase which is the most expensive in the history of the Authority. Thus, I have instructed the Authority's Director of Operations to institute summer and fall timetables which will enable us to fund this increase. This means service reductions which will eliminate or curtail the MBTA's least popular, least used, least economical services. And this also means a corresponding reduction in the Authority's work force at all levels".

There ensued a hectic period in which sub-standard bus routes were identified by use of the Service Policy guidelines, and community leaders were notified and consulted on the changes. By drawing some other bus routes into areas where cuts had to be made, the impact on the riding public was lessened. In the process, five traditional bus routes--which had not changed while community population dropped--were eliminated. These routes had cost anywhere from nine to 100 times what was taken in at the farebox. Another eight routes, in competition with parallel MBTA transportation, also were cut. Off-peak service was curtailed on eight other routes. The number of buses running per hour was reduced to varying degrees on 87 more bus routes. Chairman Kiley commented, when the cuts were announced a month in advance of the start of the summer timetable: "It was a painful process. It is the kind of pruning of bus service which normally might have been spread over the timetable for three seasons. But it is the kind of pruning of the dying branches of our service which is needed if the healthy trunk and limbs of our transportation network are to survive in this period of high inflation. It is the kind of pruning which is needed if we are to gain control over the MBTA's operating costs".

Substantial progress was made in gaining control of MBTA costs with the final binding decision on May 20 of the arbitration panel. The two-year contract calls for no wage increase for the two years of the contract with the Boston Carmen's Union. Under the terms of the old contract, wage increases of 2-1/2% had been awarded in 1974 and 1975, in addition to the cost-of-living adjustments made in those years. There was a moratorium on any further cost-of-living adjustments for the remainder of 1976. As of January 1, 1977, the arbitration panel reinstituted the cost-of-living protection and adjustments. The award basically balanced various productivity gains for management with some increases in fringe benefits for the union members. For example, while salaries for the system's supervisors, the starters and inspectors, were increased 6% and 9% respectively over the top rated bus driver's basic pay, the Authority need no longer provide for its bus drivers an annual "pick" of where they want to work. Such "picks" will now be provided every other year. A no-layoff provision, as contained in the expired contract, was also reinstituted until December 31, 1977.

More pruning of costs came in an intense period of budget preparation. More than \$20 million of programs proposed by department heads for 1977 were trimmed from the budget submitted to the Advisory Board on October 1. As a result, the

increase for the proposed 1977 budget over the 1976 approved budget was kept to 5.9 percent (\$13.7 million). It was the first time in years that the MBTA budget had beaten inflation, and it had occurred despite increases of \$14.9 million in the cost of health care, cost-of-living adjustments, and commuter rail subsidy. The manpower to operate the system had dropped slightly more than anticipated by year's end, but additional manpower is expected in 1977 as vacancies are filled to build service back to the higher levels forecast in the budget. The forecasts of the 1977 budget may have to be redetermined if the Massachusetts Supreme Judicial Court upholds the MBTA Advisory Board's challenge on December 27 to the labor contracts established through collective bargaining and to the contract established by binding arbitration with the Boston Carmen's Union in May. The Advisory Board challenged these contracts by deleting from the 1977 budget \$6,153,210 which they specified was for cost-of-living adjustments. Chairman Kiley stated he was compelled by contractual obligations to pay the adjustments, and he would honor the contracts.

The public cost of 1976 transportation, expected to be borne in November, 1977 by Federal, state and local taxpayers, was some \$4 million less than anticipated at the beginning of the year. This was a result of the MBTA not spending more than \$6 million in the 1976 budget approved by the Advisory Board, and an offsetting decrease of more than \$2 million in investment income. Thus, despite a decrease in expected income, public cost did not increase by that amount but rather decreased by some \$4 million.

Increased productivity was notable in a number of departments in 1976. There was less crime and more information on the MBTA. Under the direction of a new Chief of MBTA Police, that department redeployed its manpower to patrol more effectively in subway stations and other areas with a high incidence of crime. As a result, transit crime was reduced 38 percent. An effective detective force achieved some notable arrests and convictions on major holdups and larcenies of MBTA revenue. For public information, the MBTA distributed directly to its passengers literally hundreds of thousands of maps, bus route brochures, schedules and--new in 1976--information bulletins about problems on the transit system. The information bulletins were an example of new management coordination: the Public Information Office at 45 High Street wrote the bulletins with information supplied by various departments; the Service and Report Production unit of the Treasurer's Office at 500 Arborway printed them; and the Community Affairs and Marketing Directorate at Back Bay Station distributed them to passengers at subway, bus and train stations.

In another major public information drive, Chairman Kiley and department heads throughout the MBTA organized and attended Public Forums in the seven transportation service areas to seek ideas and answer questions from the public. Although public attendance was rather disappointingly low, some valuable suggestions were made to improve service to the public.

A major management initiative in 1976 was the establishment of an Affirmative Action program which set an interim goal of hiring minorities for 50 percent of vacancies and a long-range goal of having 20 percent of employees be from minority enterprises also were established, and the Board of Directors adopted the policy on November 10.

Throughout the year, the Operations Directorate and other departments continued their reorganization to try to use talent more effectively. A notable change was the joining of the rail equipment maintenance carhouses and the heavy maintenance shop at Everett under a Chief Mechanical Officer in order to get vehicles back into passenger service more quickly.

A major step in controlling future costs through productivity increases was made with the labor agreement to establish carhouse repairman specialists. Eleven MBTA employees were appointed to the position on October 15 after becoming the first graduates of a rigorous five-week training and testing program. The program they took qualifies them to maintain the Light Rail Vehicles, which have sophisticated electronic equipment and many other new parts. Such a job classification and training program is critical to keeping the MBTA's repair capabilities up to date with the new equipment being manufactured.

The Light Rail Vehicle itself represented both a low point and a high point in 1976. The vehicles were not ready as originally scheduled. But the vehicles also were put through a rigorous testing program which found many "bugs" which were worked out before they were put into passenger service. Scheduled for inauguration on January 5, 1977, four LRVs were pressed into duty on Thursday, December 30, 1976 in the midst of the second day of a storm which was to prove, in the month following, even worse than the previous winter's storms. Other new equipment which was put into passenger service in 1976 were 128 AM General buses; 50 trackless trolleys (trolley buses) made by Western Flyer Coach Ltd., of Winnipeg, Manitoba; a single Fiat rail diesel car which was tested for the first time in America on the MBTA-subsidized Boston & Maine commuter rail network north of Boston; and the rehabilitated 1944 streetcar, No. 3072, which was completely rebuilt by the Watertown shop. It has become the most dependable vehicle in the MBTA fleet because it's available for service 90 percent of the time.

Besides the support programs necessary to get these Federally-subsidized vehicles ready for the Operations Directorate, the Construction Directorate again had a record year in obtaining Federal grants. The \$236 million of Federal money committed to the MBTA in 1976 will mean construction jobs and improvements in service in the future.

Summing up the year, the Advisory Board Budget Committee said:

"Substantive progress in creative and efficient use of management techniques, budget techniques, and public information techniques indeed brings the Authority miles ahead of last year. The narrative in the "T" budget submission describes but a small portion of the '76 accomplishments. The Advisory Board budget tracking speaks to some other accomplishments. Much, however, has been accomplished without recognition."

Ⓣ STATISTICS 1976

Boston, Elevated Railway Company (Chartered)	1894
Public Contract Act (By Legislation)	1918
Metropolitan Transit Authority - MTA (By Legislation)	1947
Massachusetts Bay Transportation Authority - Ⓣ (By Legislation)	1964

Population of 79 Communities in Ⓣ District (1970 U.S. Census) 2,763,410

The Ⓣ operates about 1,300 vehicles which travel 135,000 miles each weekday.

Number of Bus Routes	194
Number of Streetcar Routes	5
Number of Rapid Transit Routes	3
Number of Trackless Trolley Routes	4
Buses	1,215
Streetcars (278) and Light Rail Vehicles (28)	306
Rapid Transit Cars	339
Trackless Trolleys	61

Daily Passengers (Approx.)	487,000
Annual Passengers (Approx.)	145,740,000

Rapid Transit Stations 44

Rapid Transit Route Miles (One Way) 38.1

Red Line: Harvard-Ashmont, 9.5; Harvard-Quincy, 11.7

Orange Line: Forest Hills-Malden Center, 10.1

Blue Line: Bowdoin-Wonderland, 6.8

Rapid Transit Route Miles under Construction (One Way), 4.0

Proposed Rapid Transit Route Miles (One Way), 15.4

Streetcar Route Miles (One Way) 35.1

Riverside-North Station, 12.5

Arborway-Park, 5.5

Lake St.,-Lechmere, via Commonwealth Ave., 8.0

Cleveland Circle-Lechmere, via Beacon St., 6.6

Ashmont-Mattapan, 2.5

Trackless Trolley Route Miles (One Way) 15.75

Bus Route Miles 716.6

Total Route Miles Operated 805.55

Bus Revenue Miles 24,989,800

Rapid Transit Revenue Miles 11,037,765

Streetcar Revenue Miles 5,800,240

Trackless Trolley Revenue Miles 858,525

Annual Revenue Miles Operated 42,686,330

Employees (Capital budget: 233; Operating budget: permanent and temporary-6,019) 6,252

Collective Bargaining Units 28

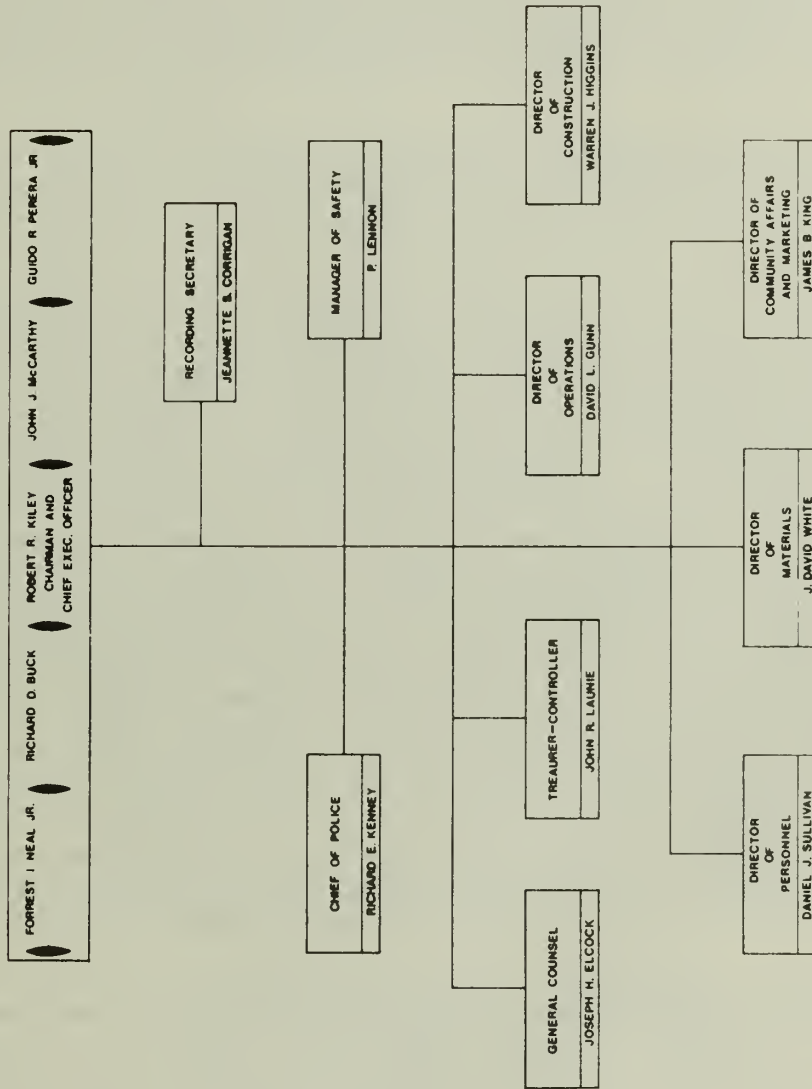
Commuter Rail Statistics

	<u>Penn Central/Conrail</u>	<u>Boston & Maine R.R.</u>
Number of Locomotives	23	--
Number of Coaches	84	--
Number of Rail Diesel Cars	8	84
Route Miles	98.6	145.3
Daily Passengers	12,500	17,500
Annual Passengers	3,022,000	4,540,000

THE CHURCH

The Church is the body of Christ, the community of believers who are united by the Holy Spirit. It is the place where God's love is made manifest to the world. The Church is called to be a light to the nations, to bring the good news of the Gospel to all people. It is the place where we learn to love God and love one another. The Church is the place where we find hope and comfort in our darkest hours. It is the place where we are transformed by the power of the Holy Spirit. The Church is the place where we are called to live out our faith in the world. It is the place where we are called to be salt and light to the world. The Church is the place where we are called to be the hands and feet of Jesus Christ. It is the place where we are called to be the love of God made visible to the world. The Church is the place where we are called to be the peace of God made manifest to the world. The Church is the place where we are called to be the joy of God made known to the world. The Church is the place where we are called to be the life of God made real to the world. The Church is the place where we are called to be the love of God made perfect in us. The Church is the place where we are called to be the peace of God made complete in us. The Church is the place where we are called to be the joy of God made full in us. The Church is the place where we are called to be the life of God made eternal in us. The Church is the place where we are called to be the love of God made perfect in us. The Church is the place where we are called to be the peace of God made complete in us. The Church is the place where we are called to be the joy of God made full in us. The Church is the place where we are called to be the life of God made eternal in us.

BOARD OF DIRECTORS



REPORTS FROM THE DEPARTMENTS

EXECUTIVE OFFICE

The Executive Office supports the Chairman and Chief Executive Officer in managing the Authority. It provides program and policy analysis and recommendations; assists the Chairman and the departments in setting goals and objectives for management and service performance; furnishes assistance to departments on planning, management and organizational problems; reviews and prepares the annual capital and operating budgets; monitors and evaluates departmental performance and spending; conducts special analyses of operations, service costs and productivity; develops strategies for maximizing Federal aid to the Authority; and distributes information to the press, Advisory Board, legislature and the public.

The Executive Office consists of the Office of the Chairman and Board of Directors; the Office of Budget and Operations Analysis; and the Office of Administrative Services, which includes the Office of Public Information.

Created largely as a result of 1973 legislation which vested in one person the responsibilities of both Chairman of the Board of Directors and Chief Executive Officer, the Executive Office in 1976 took an initial series of steps toward strengthening the Authority's planning, budgeting and reporting systems. In this regard, the intent has been to improve the basis for top management decision-making as well as to insure that appropriate management controls were established and functioning properly. For example, a new system of budget controls was initiated, which requires not only the preparation by each department of twelve month spending plans, but also periodic, formal reviews of each department's program and budget performance. This process, by monitoring problems in a timely enough manner to permit adjustment in management plans and resources, contributed to the Authority's completing 1976 without the need for a supplemental appropriation from the Advisory Board, the first such occurrence in many years. Moreover, through the efforts of a newly organized Capital Budget Committee, the MBTA has established its own recommended capital investment priorities for 1977. Another initiative carried out by the Executive Office has been a review of the Authority's published policies and procedures which govern internal operations and administration. By the end of 1976, the Authority had begun a complete revision of all internal procedures to insure their pertinence, consistency and clarity.

Through the work of the Assistant to the Chairman and the Director of Public Information, the Executive Office has greatly improved the Authority's communication with the public and responsiveness to complaints and requests for information. One notable illustration of these efforts is the newly initiated WEEI public information spot announcements concerning rush hour service. The widely disseminated announcements at the time of the July Fourth and Tall Ships ceremonies, which diverted millions of people away from traffic congestion and onto public transportation, provide another vivid example of the contribution of the Authority's public information capabilities to overall service and revenue goals.

THE HISTORY OF THE UNITED STATES OF AMERICA

BY

JOHN F. JOHNSON

1776	1777	1778	1779	1780	1781	1782	1783	1784	1785	1786	1787	1788	1789	1790	1791	1792	1793	1794	1795	1796	1797	1798	1799	1800	1801	1802	1803	1804	1805	1806	1807	1808	1809	1810	1811	1812	1813	1814	1815	1816	1817	1818	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000	3001	3002	3003	3004	3005	3006	3007	3008	3009	3010	3011	3012	3013	3014	3015	3016	3017	3018	3019	3020	3021	3022	3023	3024	3025	3026	3027	3028	3029	3030	3031	3032	3033	3034	3035	3036	3037	3038	3039	3040	3041	3042	3043	3044	3045	3046	3047	3048	3049	3050	3051	3052	3053	3054	3055	3056	3057	3058	3059	3060	3061	3062	3063	3064	3065	3066	3067	3068	3069	3070	3071	3072	3073	3074	3075	3076	3077	3078	3079	3080	3081	3082	3083	3084	3085	3086	3087	3088	3089	3090	3091	3092	3093	3094	3095	3096	3097	3098	3099	3100	3101	3102	3103	3104	3105	3106	3107	3108	3109	3110	3111	3112	3113	3114	3115	3116	3117	3118	3119	3120	3121	3122	3123	3124	3125	3126	3127	3128	3129	3130	3131	3132	3133	3134	313
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-----

OPERATIONS DIRECTORATE

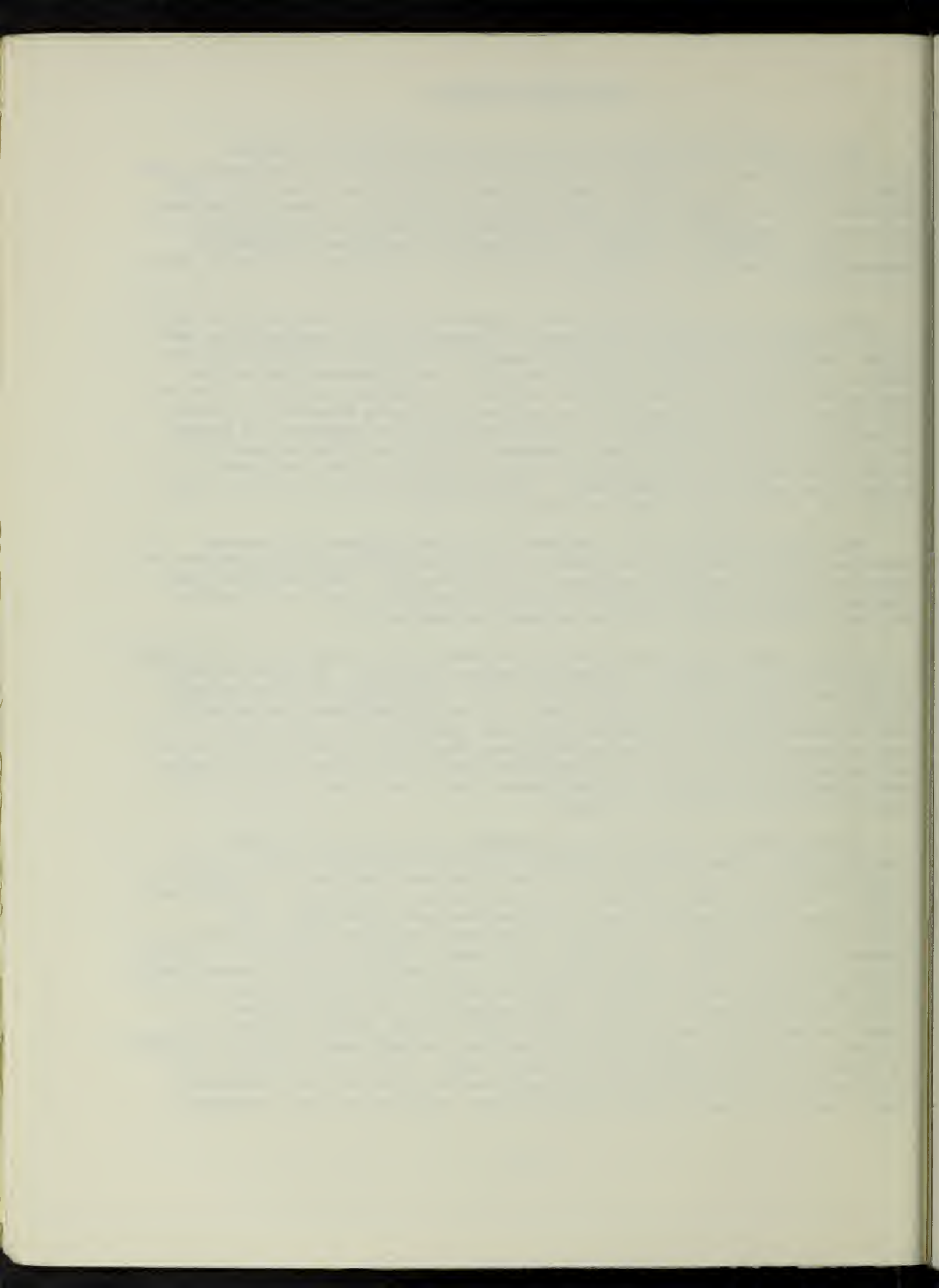
The Operations Directorate had the responsibility in 1976 of carrying 153,282,000 passengers on MBTA-operated vehicles (145,740,000) and on commuter rail cars (7,562,000). It coordinated and monitored the activities of more than 5500 MBTA employees in Transportation, Rail Equipment Maintenance, Automotive Equipment Maintenance, Commuter Rail, Engineering Maintenance, and Operations Planning. It had a budget of about \$170 million. Its operators and vehicles, responding to seasonal demand and budget limitations, made between 10,000 and 12,000 round trips each weekday.

Major areas of concern in 1976 were reorganization of the various departments in the Operations Directorate (re-created in November, 1975); keeping within the budget; beginning painting and cleaning campaigns on vehicles; tightening up work habits; improving productivity through the better use of manpower; the arrival, testing and operation of the Light Rail Vehicle, and starting operation of the new LRV Carhouse; the establishment of the position of Carhouse Repairman Specialist to maintain the new rail equipment; and the phasing out of Tewksbury bus garage and the Eliot Red Line rapid transit carhouse. A major sideline was negotiations on the final terms of the contract to purchase the Boston & Maine Railroad's property and vehicles in Massachusetts. The purchase, which was initially agreed to in July, 1975, was made final on December 27, 1976.

Major reorganizations were undertaken in the Rail Equipment Maintenance Department with the appointment in May of a Chief Mechanical Officer to oversee the operations of rail equipment carhouses for the Green, Red, Orange and Blue Lines; the heavy repairs (engine overhaul and collision repair) to rail and automotive equipment at Everett Shops; and the equipment engineering unit.

Another major reorganization was the placement of all operations and maintenance of structures--128 buildings including 60 station structures; 180 miles of track; 30 bridges; power lines; and signal lines--under the Engineering and Maintenance Department, headed by the Chief Engineer. In a middle management reorganization, the Automotive Equipment Maintenance Department upgraded five garage foremen to a new management position of District Maintenance Supervisors. The objective of the reorganization was to upgrade the responsibilities of the managers of bus garages and to improve accountability for performance, and to define more accurately the separation between labor and management.

Keeping within the budget was made possible in part by the Operations Planning Office, whose work in trimming back poor-performing bus routes for the Summer timetable to meet a budget crisis which has been described in the Highlights of 1976. With the Summer timetable for buses reduced by 20 percent, the MBTA was able to keep within its budget and to use manpower more effectively. The manpower level was reduced by careful planning made necessary by the no-layoff clauses in our contracts. More drivers took summer vacations than usual. Some bus drivers switched to track maintenance work or other MBTA jobs for the summer, thereby achieving a better use of manpower. Under Service Policy guidelines, bus service outside the MBTA district to Lowell was transferred to the Lowell Regional Transit Authority in June, permitting the closing of the Tewksbury garage. In September, again under Service Policy guidelines, the MBTA began reducing the number of expensive, special school bus runs that it made. With these reductions, it was possible at the end of the year to sell some of the older, less maintainable buses, thereby making bus fleet maintenance more efficient and more manageable.



The net effect of these changes in 1976 was that well over a million dollars was not spent and, therefore not charged against the taxpayers.

On the other hand, the rapid transit service was increased substantially in the autumn timetable on the Orange and Red Lines. The frequency of buses, cut back on scores of routes in the summer, were restored in September.

The Orange Line was the top performing line by far, with service problems on only a few days. There were a number of major problems in the delivery of transportation service on other lines in 1976. The Blue Line's passengers suffered after a 1500 kilowatt rectifier blew out February 6, forcing a reduction in the number of trains for much of the time until March 22 when the rebuilt rectifier was installed at the Orient Heights power substation in East Boston. Weekday Blue Line commuter service also suffered from sporadic one day problems such as overhead wire being down, power failures, signal problems, switch problems, one notable instance of vandalism along the rails, the burning of the outbound platform of Suffolk Downs Station on February 15, and of course, snow and ice problems. The Red Line was plagued particularly by sporadic winter weather problems in January, February, March and December; by signal and switch problems off and on during the year; and by problems in September and October with the Cambridge-Dorchester Red Line cars (called Bluebirds because they were painted blue when delivered in 1963). On September 13, a Bluebird train derailed at Andrew Station. The cause was a broken axle. On October 5, between South Station and Broadway Station, another Bluebird broke its axle. That night, the MBTA announced it was withholding 38 Bluebirds from further service pending inspection of their axles over the next nine days. Consequently, rush hour service was reduced from 13 four-car trains from Quincy and 13 four-car trains from Ashmont to 8 four-car trains from Quincy and 8 four-car trains from Ashmont. Ultrasonic inspection and further inspection measures found that many other axles had hairline cracks which could have resulted in other derailments. A concerted program of axle replacement was immediately begun and service was gradually restored.

The 26-to-36-year-old stable of Green Line streetcars started off 1976 as the victims of the 12-day December 1975 storm. They ended 1976 plagued by the December 29-30 storm which prompted the introduction of the Light Rail Vehicles to the Green Line. In between, despite many breakdowns, the streetcars generally made the scheduled trips. Between the storms of January-March and December, the battle to maintain the cars was waged with more success than failure but the resulting level of service was still below public demand.

The "Yellow Line" of buses, in addition to their regular service, picked up the passengers when there was a breakdown in the fixed rail system. Substitute bus service was provided at various times on every rapid transit line. Additional service was provided for special events.

The most special event of the transportation year was the Bicentennial celebration of the 4th of July, the visit of Queen Elizabeth II of Great Britain on July 11, and the Tall Ships visit July 10-15. The MBTA organized extra service, the public was informed of transit schedules and areas where cars could be parked, and an extraordinary number of people took public transportation. Hundreds of thousands of people crowded the streets of Boston, leaving their cars at home or in outlying areas. The MBTA, accustomed to individual complaints about individual employees or vehicles, received an outpouring of letters of commendation about the Bicentennial service. An Everett woman wrote the Chairman:

"May I offer my congratulations to you and everybody employed by the MBTA for the wonderful service provided for our Bicentennial celebration. Many of them had to work on their days off and vacation time, but they were all so courteous and very patient with the many passengers and children. It was wonderful. They all deserve a lot of credit. The service was fantastic. Bless them all."

The Tall Ships and the Queen's visit generated much good will. So, in their various areas, did the new equipment the MBTA introduced to passenger service in 1976. New trackless trolleys made their debut in the Spring. A Fiat rail diesel car, made available to the MBTA for the Federally-subsidized cost of shipping, was tested in America for the first time on the Boston & Maine commuter rail network and put into passenger service on August 30. On September 15, President's Conference Committee (PCC) Car No. 3072 was returned to service on the Arborway Line after being completely rebuilt at the Watertown Carhouse and the Everett Shops. On October 14, the new high profile of the air-conditioned AM General buses was seen on the streets of Boston for the first time. A total of 128 of the new buses were delivered for use throughout the MBTA district.

The inauguration of the Light Rail Vehicles into service on December 30 capped a year of long preparation for the day. The new Riverside Carhouse was dedicated in January, and the first LRV test vehicle arrived in late March. The first vehicles destined for passenger service arrived in September. Negotiations with the union produced a new job classification, carhouse repairman specialist, to maintain the LRV.

Other vehicles were being renewed while the LRV was being manufactured. The 1951-52 cars on the East Boston line were repainted and two "Bluebirds" on the Cambridge-Dorchester Red Line were repainted as prototype "Red Birds". The 1977 rehabilitation of these Bluebirds will include as a last touch the new paint job, which coordinates the color of the vehicle with the color of the line. Besides the glamour of new paint, more preventative maintenance inspection programs were carried out on vehicles. As a further part of this clean-up campaign, a drive was instituted to ensure that such particulars as the destination signs on transit cars and buses were correct. A committee started to investigate the replacement of the 1960's style uniform. On the rapid transit lines, many stations were repainted.

In the Commuter Rail Operations office, ridership to the south and west increased slightly, while ridership to the north decreased when towns and cities outside the MBTA district decided to eliminate the local subsidy of the service. To the south, the Penn Central commuter lines were taken over by Conrail in April. As the year closed, the sale of the Boston & Maine properties in Massachusetts to the MBTA was completed, thereby opening the prospect of Federal capital grants to rehabilitate the commuter rail service.

CONSTRUCTION DIRECTORATE

The Construction Directorate experienced a record year in 1976 in the award of Federal grants and loans that enabled the MBTA to go forward with its plans for expanding and modernizing metropolitan Boston's transportation system, to acquire the Boston & Maine Railroad properties and equipment, and to help offset the cost of service assessable to the 79 cities and towns in the transportation district.

The funds approved by the Urban Mass Transportation Administration, Department of Transportation, amount to \$236,235,155, an increase of 115.4 percent over 1975, which was also a record year. All but \$52,213,847, which represents operating assistance and the loan for the B & M acquisition, were 80 percent capital grants available to carry out the T's Program for Mass Transportation. In the past two years, the T has received \$345,903,478 in Federal funds almost as much as the \$347,577,094 received in Federal funds in the previous 10 years.

The Construction Directorate's activities for 1976 saw the award of about \$16 million in new construction contracts, the winding down of the \$180 million dollar Haymarket-North Extension with the completion of the Oak Grove Station in Malden and Melrose, continuing progress on prior year contracts, and contract awards for design and engineering for planned rapid transit projects and for studies for future transportation services.

While Oak Grove Station was completed, the opening for revenue service was delayed until the Spring of 1977 pending completion of a study of the impact the station will have on land use and traffic in the area.

Of the nearly \$16 million in new construction contracts awarded, the major ones were for: modernization of the Green Line's Park Street Station (\$3,625,000) and Auditorium Station (\$632,000); improvements to the Green Line's Riverside Line (two contracts totaling \$2,988,163); modernization of State Station including a new entrance/exit in the Old State House for the Orange and Blue Lines (\$948,000); modernization of Washington Station on the Red and Orange Lines (two contracts totaling \$2,683,000); reconstruction of a Mystic River bulkhead, demolition of buildings and site work for the Charlestown Bus Storage and Maintenance Facility (three contracts totaling \$1,826,452); repairs to the Green Line's elevated structure from the north subway portal to Lechmere Station, Cambridge (\$950,124), and repairs to the Red Line's Longfellow Bridge and approach spans (\$578,435).

Work continued on contracts awarded in 1975 for major modernization work at Ashmont Station on the Red Line and Haymarket Station on the Orange Line and minor modernization work at the Orange Line's six elevated stations between the subway portal and Forest Hills.

By year's end, design and engineering work was underway on:

--the planned 6.5 mile Red Line extension in the Northwest Corridor. The extension is to be a deep bore tunnel from Harvard Square to Davis Square, Somerville, and a cut and cover tunnel from Davis Square to Arlington Heights. The tunnel as far as Alewife Brook Parkway and four of the six stations are under design. The other new stations will be at Harvard Square (replacing the existing station); Porter Square in Cambridge; Davis Sq., Somerville; and Alewife Brook Parkway, Cambridge, where there is to be a 2,000-car parking garage, and Arlington Center. The extension is scheduled for completion in 1982.

--the 3.4-mile extension of the Red Line in the South Shore Corridor from Quincy Center Station to South Braintree. The extension and two stations, South Quincy with a 2,000-car garage, and South Braintree with a 1,200-car parking garage, are under design. The first construction contract (\$205,569) was awarded in July for sitework and completed in the Fall. Construction is to proceed at a fast pace during the next two years.

--the 4.7-mile relocated Orange Line between a new South Cove tunnel connection and Forest Hills. (Design work to complete the South Cove tunnel and a new subway station was completed. Construction is scheduled to begin in early 1977. The relocated Orange Line will be built on the existing railroad main line right-of-way. The railroad embankment will be depressed and will accommodate a three-track railroad and two-track Orange Line. There will be nine new rapid transit stations, three of which will also serve railroad passengers. The Southwest Corridor Project is scheduled for completion in 1981.

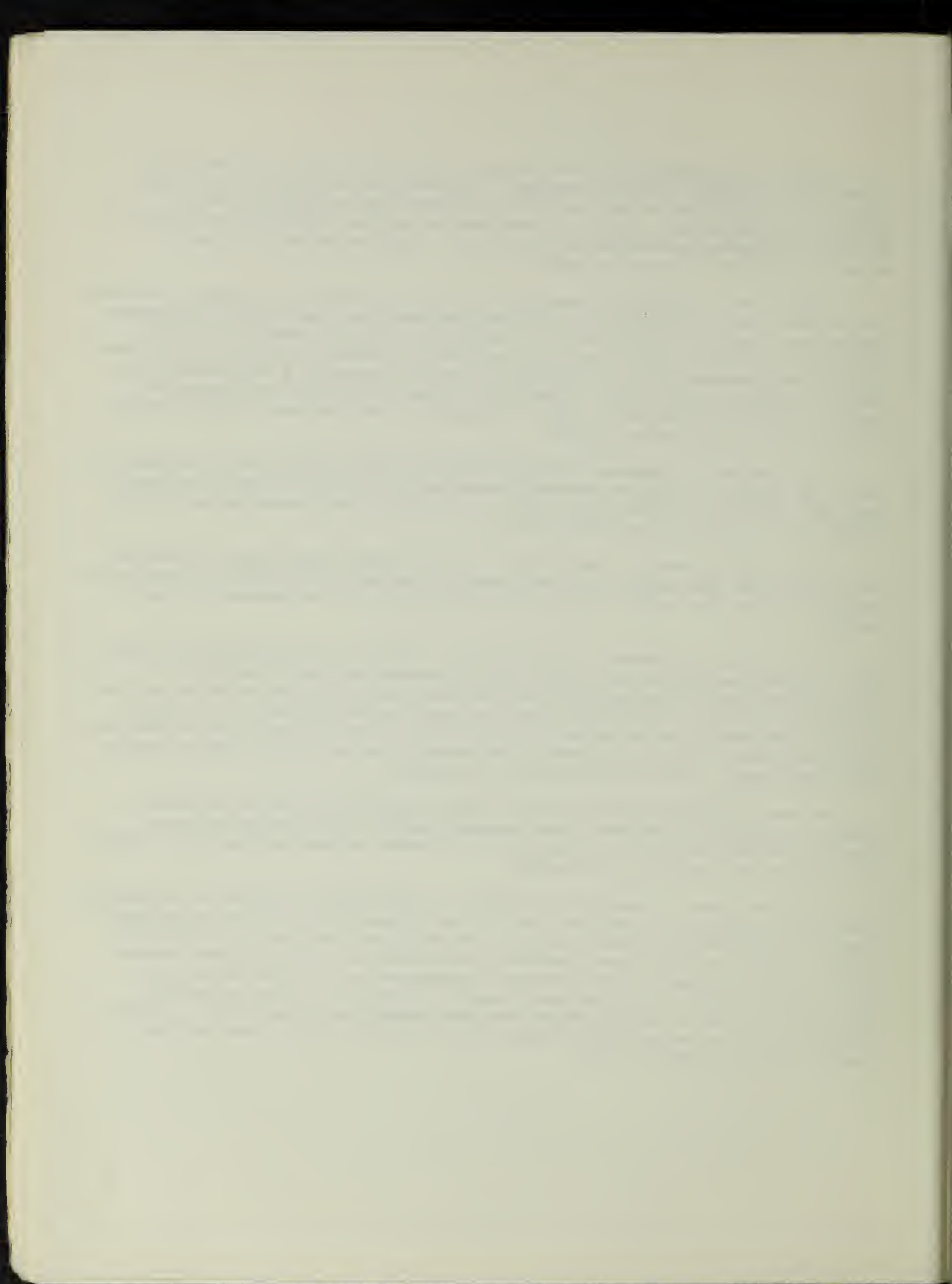
--the nine-mile Dorchester Division (Midland Branch) which is to be rebuilt for use by **T** commuter and Amtrak passenger trains during the relocation of the Orange Line and the rehabilitation of the railroad main line. The reconstructed line is scheduled to be ready for service in 1978.

--the 18-mile Franklin Branch which is to be rehabilitated between Readville and Franklin for the commuter railroad service. The work, scheduled to be completed in 1977, will be done under a force account agreement with the operator of the service.

Other design, engineering or architectural contracts awarded during 1976 were for: The new Charlestown Bus Storage and Maintenance Facility; a cashier's receiving building at Charlestown; the immediate needs-power generation project and a bulk power purchase switching facility; a signal repair facility to be located at the Cabot Transportation Center in South Boston; structural and track realignment of the northbound curve of the Orange Line south of Dudley Station; subway ventilation improvements, and minor systemwide improvements.

Because the **T** anticipated acquiring Boston & Maine Railroad properties and commuter equipment before year's end, several studies for improving the lines, stations and rolling stock were undertaken and design engineering contracts awarded to implement the results of the studies.

The first phase of feasibility studies and environmental analyses of transportation alternatives in the Lexington area of the Northwest Corridor and in the Lynn area of the Northeast Corridor, including extending the Blue Line from Wonderland Station, Revere, to Lynn, were completed and forwarded to the Urban Mass Transportation Administration, U.S. Department of Transportation. Started during the year was a feasibility study and environmental analysis of a South End/Roxbury replacement service to be implemented when the Orange Line is relocated. A similar study for the area served by the Needham Branch commuter railroad was nearing completion at the close of 1976.



FEDERAL GRANTS and LOANS in CALENDAR 1976

<u>Project Description</u>	<u>Date Approved</u>	<u>Federal Share</u>	<u>Local Share</u>	<u>Total</u>
Green Line Amendment	3/22/76	\$ 9,256,368 (80%)	\$ 2,314,092 (20%)	\$ 11,570,460
Midland Division	4/09/76	12,800,000 (80%)*	3,200,000 (20%)	16,000,000
South Cove Tunnel	4/09/76	26,950,400 (80%)*	6,737,600 (20%)	33,688,000
Operating Assistance	6/10/76	11,172,532 (8 1/2%)**	120,142,567 (91 1/2%)	131,315,099
South Quincy RT Station	7/21/76	21,015,044 (80%)	5,253,761 (20%)	26,268,805
Power Improvements	7/21/76	12,518,560 (80%)	3,129,640 (20%)	15,648,200
Purchase 190 RT Cars	7/21/76	18,418,920 (80%)*	4,604,730 (20%)	23,023,650
South Shore Extension	7/21/76	60,320 (80%)	15,080 (20%)	75,400
Haymarket-North Extension	7/21/76	2,918,244 (80%)	729,561 (20%)	3,647,805
Cabot Maintenance Center	7/21/76	551,712 (80%)	137,928 (20%)	689,640
Systemwide Modernization	7/21/76	162,204 (80%)	40,551 (20%)	202,755
Station Modernization-II	7/21/76	216,004 (80%)	54,001 (20%)	270,005
Green Line Improvements	7/21/76	713,744 (80%)	178,436 (20%)	892,180
Purchase 125 Buses	7/21/76	48,968 (80%)	12,242 (20%)	61,210
Power Improvements	7/21/76	42,320 (80%)	10,580 (20%)	52,900
Green Line Vehicle	7/21/76	884,740 (80%)	221,185 (20%)	1,105,925
Safety Improvements	7/21/76	220,176 (80%)	55,044 (20%)	275,220
Plant Improvements-II	7/21/76	370,728 (80%)	92,682 (20%)	463,410
Purchase 50 Trackless Trolleys	7/21/76	57,908 (80%)	14,477 (20%)	72,385
Restoration of Orange Line	7/21/76	204,520 (80%)	51,130 (20%)	255,650
Charlestown Bus Garage	10/06/76	13,202,100 (80%)	3,300,525 (20%)	16,502,625
Unified Work Program	10/06/76	3,000,000 (80%)*	750,000 (20%)	3,750,000
Boston & Maine Loan CRIP II	10/06/76	24,172,750 (100%)**	---	24,172,750
CRIP II	10/06/76	46,308,960 (80%)*	11,577,240 (20%)	57,886,200
Modernize 88 Red Line Cars	10/06/76	14,099,368 (80%)*	3,524,842 (20%)	17,624,210
Operating Assistance	12/11/76	16,868,565 (11 2/3%)**	127,881,575 (88 1/3%)	144,750,140
GRAND TOTALS		\$236,235,155	\$294,029,469	\$530,264,624

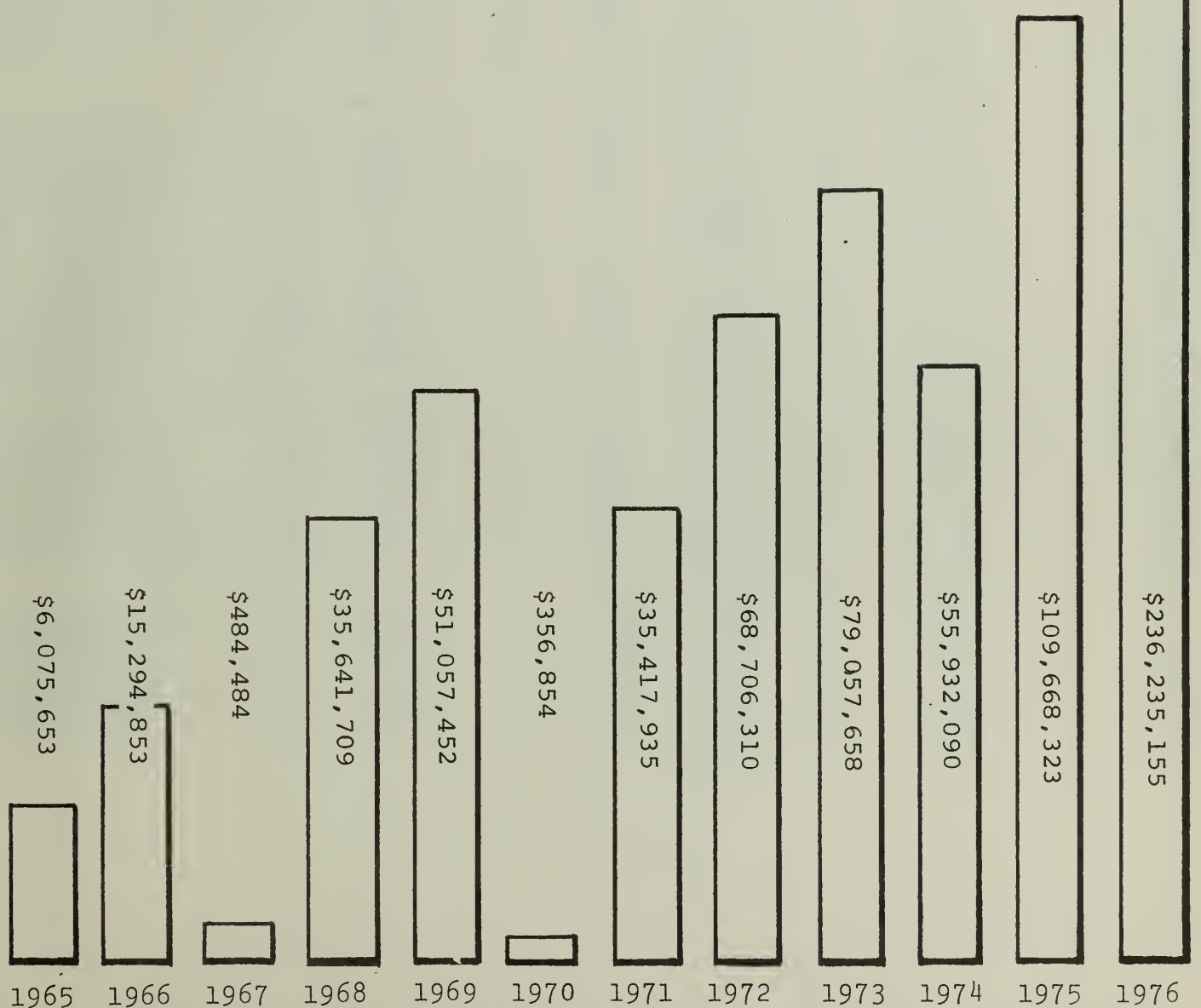
* Interstate Transfer Funds

** Section 5 Funds, Urban Mass Transportation Act of 1964, as amended

*** Boston & Maine Acquisition Loan

FEDERAL AID GRANTS AND LOANS

1965 _____ 1976



TOTAL : \$693,480,572

FEDERAL GRANTS and LOANS 1965 - 1976

AL R	PROJECT DESCRIPTION	DATE APPR.	FEDERAL PROJ.#	TYPE CODE	FEDERAL	SHARE	LOCAL	SHARE	INVESTMENT INCOME	TOTAL
5	19 Station Modernization	2-15-65	MA-03-0001**	(C)	66-2/3%	\$6,075,653.	33-1/3%	\$3,037,826.	\$2,441.	\$9,115,920.
6	30 Bus Acquisition (150)	5-23-66	MA-03-0002**	(C)	66-2/3%	3,136,654.	33-1/3%	1,568,327.	-	4,704,981.
	11 Haymarket Tunnel	6-14-66	MA-03-0003**	(C)	66-2/3%	11,997,599.	33-1/3%	5,998,800.	3,601.	18,000,000.
						15,134,253.		7,567,127.	3,601.	22,704,981.
7	11 Haymarket Soils Instru.	10-12-66	MA-06-0008**	(D)	66-2/3%	160,600.	33-1/3%	80,300.	74.	240,974.
	12 Southwest Corridor Stu.	6-21-67	MA-09-0001	(T)	66-2/3%	484,484.	33-1/3%	242,242.	-	726,726.
						645,084.		322,542.	74.	967,700.
8	14 South Shore R/T	3-12-68	MA-03-0004	(C)	66-2/3%	34,469,333.	33-1/3%	17,234,667.	117,000.	51,821,000.
	14 South Shore R/T	3-12-68	MA-03-0004	(R)	100%	617,000.	-	-	-	617,000.
	Training Grant	1968	MTTR-2**	(M)	75%	19,976.	25%	6,658.	-	26,634.
						35,106,309.		17,241,325.	117,000.	52,464,634.
9	11 Haymarket North	6-24-69	MA-03-0005	(C)	66-2/3%	50,862,000.	33-1/3%	25,431,000.	-	76,293,000.
	12 Southwest Corridor Amend.	12-16-68	MA-09-0001	(T)	66-2/3%	13,333.	33-1/3%	6,667.	-	20,000.
	17 Central Area Systems Stud.	9- 7-68	MA-09-0002**	(T)	66-2/3%	522,067.	33-1/3%	261,034.	-	783,101.
	11 HN Soils Instru. Amend.	6-27-69	MA-06-0008**	(D)	66-2/3%	144,971.	33-1/3%	72,486.	-	217,457.
	Service Development	6- 4-69	MASS-MTD-7**	(D)	81%	35,178.	19%	8,252.	-	43,430.
	Training Grant	1969	MTTR-3**	(M)	75%	15,303.	25%	5,102.	-	20,405.
						51,592,852.		25,784,541.	-	77,377,393.
10	Training Grant	6-15-70	MTTR-4**	(M)	75%	10,238.	25%	3,412.	-	13,650.
11	14 South Shore R/T Amend.	5-18-71	MA-03-0004	(C)	66-2/3%	3,657,263.	33-1/3%	1,828,632.	-	5,485,895.
	16 Cabot Maint. Center	5-18-71	MA-03-0007	(C)	66-2/3%	18,800,000.	33-1/3%	9,400,000.	-	28,200,000.
	21 System Wide Mod.	5-18-71	MA-03-0010	(C)	66-2/3%	3,000,000.	33-1/3%	1,500,000.	-	4,500,000.
	37 Bus Acquisition (310)	5-18-71	MA-03-0011	(C)	66-2/3%	8,100,250.	33-1/3%	4,050,125.	-	12,150,375.
	Validation Study	8-27-70	MASS-MTD-8	(D)	87%	346,616.	13%	51,422.	-	398,038.
	Validation Stu. Amend.	5- 9-71	MASS-MTD-8	(D)	83%	35,100.	17%	7,296.	-	42,396.
	Training Grants	Various	MTTR-5-9**	(M)	75%	22,738.	25%	7,579.	-	30,317.
						33,961,967.		16,845,054.	-	50,807,021.
72	38/52 Bos. Trans. Plan. Rev.	7- 9-71	MA-09-0010	(T)	66-2/3%	1,693,500.	33-1/3%	846,750.	-	2,540,250.
	41 Light Rail Veh. Spec.	12- 8-71	MA-06-0015**	(D)	84%	109,084.	16%	20,841.	-	129,925.
	16 Cabot Maint. Cent. Amend.	1-12-72	MA-03-0007	(C)	66-2/3%	320,000.	33-1/3%	160,000.	-	480,000.
	54 Sta. Mod. Phase II	5-19-72	MA-03-0013	(C)	66-2/3%	9,565,086.	33-1/3%	4,782,544.	-	14,347,630.
	53 Green Line Improvements	2-25-72	MA-03-0015	(C)	66-2/3%	25,413,333.	33-1/3%	12,706,667.	-	38,120,000.
	51 Non-Revenue Equipment	1-12-72	MA-03-0021	(C)	66-2/3%	568,940.	33-1/3%	284,470.	-	853,410.
	Training Grants	Various	MA-10-0010-13**	(M)	75%	20,621.	25%	6,875.	-	27,499.
						37,690,567.		18,808,147.	-	56,498,714.
3	41 Light Rail Veh. Spec. Amend.	8-25-72	MA-06-0015**	(D)	72%	18,327.	28%	7,126.	-	25,453.
	55 Green Line Vehicles	10-20-72	MA-03-0022	(C)	66-2/3%	32,800,000.	33-1/3%	16,400,000.	-	49,200,000.
	56 Plant Impro. Phase I	1- 2-73	MA-03-0017	(C)	66-2/3%	1,573,146.	33-1/3%	786,574.	-	2,359,720.
	58 Rapid Transit Cars (80)	6-18-73	MA-03-0024	(C)	66-2/3%	18,410,600.	33-1/3%	9,205,300.	-	27,615,900.
	57 Safety Improvements	6-18-73	MA-03-0025	(C)	66-2/3%	10,601,640.	33-1/3%	5,300,820.	-	15,902,460.
	59 Plant Impro. Phase II	6-18-73	MA-03-0026	(C)	66-2/3%	7,933,092.	33-1/3%	3,966,548.	-	11,899,640.
	60 Track. Trolleys (50) Phase II	6-18-73	MA-03-0028	(C)	66-2/3%	1,781,500.	33-1/3%	890,750.	-	2,672,250.
	11/62 Haymarket North Amend.	6-27-73	MA-03-0005	(C)	66-2/3%	13,126,410.	33-1/3%	6,563,206.	-	19,689,616.
	Penn Central Acquisition	1-26-73	MA-03-9001	(L)	100%	19,500,000.	-	-	-	19,500,000.
	Training Grants	Various	MA-10-0016-20**	(M)	75%	26,494.	25%	8,832.	-	35,326.
						105,771,209.		43,129,156.	-	148,900,365.
74	61 Rest. Orange Line Str.	10-26-73	MA-03-0029	(C)	80%	4,456,872.	20%	1,114,218.	-	5,571,090.
	63 Transit Develop. Program	8-22-73	MA-09-0016	(T)	80%	1,200,000.	20%	300,000.	-	1,500,000.
	16 Cabot Supplemental	6-10-74	MA-03-0007	(C)	80%	5,424,476.	20%	1,356,119.	-	6,780,595.
	55 Green Line Veh. Amend.	6-10-74	MA-03-0022	(C)	80%	7,628,488.	20%	1,907,122.	-	9,535,610.
	60 Track. Trolley Amend.	6-28-74	MA-03-0028	(C)	80%	1,133,360.	20%	283,340.	-	1,416,700.
	11 Haymarket North Amend.	6-27-74	MA-03-0005	(C)	80%	1,000,000.	20%	250,000.	-	1,250,000.
	65 Unified Work Program	7-11-74	MA-29-9001	(T) (IT)	80%	10,000,000.	20%	2,500,000.	-	12,500,000.
	66 Power Improvements	7-11-74	MA-03-0019	(C)	80%	2,115,836.	20%	528,959.	-	2,644,795.
	67 Purchase of 125 New Buses	7-15-74	MA-03-0018	(C)	80%	5,496,500.	20%	1,374,125.	-	6,870,625.
	Training Grants	Various	MA-10-0021-22	(M)	75%	13,006.	25%	4,349.	-	17,355.
						38,468,538.		9,618,232.	-	48,086,770.

PROJECT DESCRIPTION	DATE APPR.	FEDERAL PROJ. #	TYPE CODE	FEDERAL	SHARE	LOCAL	SHARE	INVESTMENT INCOME	TOTAL
68 So. Shore R/T - Braintree	11- 1-74	MA-23-9001	(C) (IT)	80%	\$23,040,424.	20%	\$5,760,106.		\$28,800,530.
01 Prepaid Transit Pass Program	10-25-74	MA-06-0059	(D)	100%	80,000.	-	-		80,000.
70 Charlestown Bus Garage	2-12-75	MA-03-0016	(C)	80%	8,314,400.	20%	2,078,600.		10,393,000.
71 Plant Impro. Phase III	2-12-75	MA-03-0031	(C)	80%	13,942,800.	20%	3,485,700.		17,428,500.
72 Main. Productivity Study	5-22-75	MA-09-0026	(T)	80%	136,000.	20%	34,000.		170,000.
73 Purchase & Mod. R/T Cars	7- 7-75	MA-23-9002	(C) (IT)	80%	42,688,360.	20%	10,672,090.		53,360,450.
74 Immediate Needs Power	6-23-75	MA-03-0037	(C)	80%	10,394,400.	20%	2,598,600.		12,993,000.
56 Plant Improv. Ph. I Amend.	7- 7-75	MA-03-0017	(C)	80%	5,723,068.	20%	1,430,767.		7,153,835.
75 Service Bus Lines	7- 7-75	MA-03-0042	(C)	80%	204,480.	20%	51,120.		255,600.
76 Rest. Track Support Stru.	7- 7-75	MA-03-0036	(C)	80%	2,526,256.	20%	631,564.		3,157,820.
77 Commuter Rail Phase I	7- 7-75	MA-03-0040	(C)	80%	10,907,200.	20%	2,726,800.		13,634,000.
78 Purchase 143 New Buses	7- 7-75	MA-03-0033	(C)	80%	7,987,396.	20%	1,996,849.		9,984,245.
02 Validation Study Amendment	4-30-75	MA-06-0011	(D)	100%	68,000.	-	-		68,000.
03 B & M Track Rehabilitation	7-31-75	013200117	(C)	62%	506,212.	38%	317,000.		823,212.
79 MAPC Tech. Study	8-22-74	MA-09-0018	(T) ***	-	-	100%	148,750.		148,750.
Training Grants	Various	MA-10-0025-27	(M)	75%	18,602.	25%	6,203.		24,805.
					<u>126,537,598.</u>		<u>31,938,149.</u>		<u>158,475,747.</u>
Operating Asst.	11-18-75	MA-05-4003	(OA)	49%	6,241,114.	51%	6,531,258.		12,772,372.
Training Grants	Various	MA-10-0028-29	(M)	75%	10,035.	25%	3,346.		13,381.
53 Green Line Amend.	3-22-76	MA-03-0015	(C)	80%	9,256,368.	20%	2,314,092.		11,570,460.
83 Midlands	4- 9-76	MA-23-9004	(C) (IT)	80%	12,800,000.	20%	3,200,000.		16,000,000.
84 South Cove	4- 9-76	MA-23-9005	(C) (IT)	80%	26,950,400.	20%	6,737,600.		33,688,000.
Operating Asst.	6-10-76	MA-05-4006	(OA)	9%	11,172,532.	91%	120,142,567.		131,315,099.
86 So. Quincy R/T Sta.	7-21-76	MA-03-0049	(C)	80%	21,015,044.	20%	5,253,761.		26,268,805.
66 Power Improvements	7-21-76	MA-03-0019	(C)	80%	12,518,560.	20%	3,129,640.		15,648,200.
73 Purch. 190 R/T Cars	7-21-76	MA-23-9002	(C) (IT)	80%	18,418,920.	20%	4,604,730.		23,023,650.
14 South Shore	7-21-76	MA-03-0004	(C)	80%	60,320.	20%	15,080.		75,400.
11 Haymarket North	7-21-76	MA-03-0005	(C)	80%	2,918,244.	20%	729,561.		3,647,805.
16 Cabot Maint. Ctr.	7-21-76	MA-03-0007	(C)	80%	551,712.	20%	137,928.		689,640.
21 System-Wide Mod.	7-21-76	MA-03-0010-1	(C)	80%	162,204.	20%	40,551.		202,755.
54 Sta. Mod. Phase II	7-21-76	MA-03-0013	(C)	80%	216,004.	20%	54,001.		270,005.
53 Green Line Improvements	7-21-76	MA-03-0015-02	(C)	80%	713,744.	20%	178,436.		892,180.
67 Purch. 125 Buses	7-21-76	MA-03-0018-01	(C)	80%	48,968.	20%	12,242.		61,210.
66 Power Improvements	7-21-76	MA-03-0019-02	(C)	80%	42,320.	20%	10,580.		52,900.
55 Green Line Vehicle	7-21-76	MA-03-0022-02	(C)	80%	884,740.	20%	221,185.		1,105,925.
57 Safety Impr.	7-21-76	MA-03-0025-01	(C)	80%	220,176.	20%	55,044.		275,220.
59 Plant Improv. Phase II	7-21-76	MA-03-0026-01	(C)	80%	370,728.	20%	92,682.		463,410.
60 Track. Trolley 50	7-21-76	MA-03-0028-02	(C)	80%	57,908.	20%	14,477.		72,385.
61 Rest. Orange Line	7-21-76	MA-03-0029-01	(C)	80%	204,520.	20%	51,130.		255,650.
70 Charlestown Bus Garage	10- 6-76	MA-03-0016	(C)	80%	13,202,100.	20%	3,300,525.		16,502,625.
65 Unified Work Program	10- 6-76	MA-29-9001-1	(T) (IT)	80%	3,000,000.	20%	750,000.		3,750,000.
87 B & M Loan CRIP II	10- 6-76	MA-23-9010	(L)	100%	24,172,750.	-	-		24,172,750.
88 CRIP Phase II	10- 6-76	MA-23-9006	(C) (IT)	80%	46,308,960.	20%	11,577,240.		57,886,200.
64 Mod. 88 Red Line Cars	10- 6-76	MA-23-9009	(C) (IT)	80%	14,099,368.	20%	3,524,842.		17,624,210.
					<u>\$225,617,739.</u>		<u>\$172,682,498.</u>		<u>\$398,300,237.</u>
GRAND TOTAL					<u>\$676,612,007.</u>		<u>\$346,978,009.</u>	<u>\$123,116.</u>	<u>\$1,023,713,132.</u>

PE CODE

Capital (R) Relocation
 Demonstration (T) Technical
 Loan (IT) Interstate Transfer
 Managerial (OA) Operating Assistance

**Completed Grants

***MBTA participating in MAPC Tech. Study Grant up to \$148,750.



COMMUNITY AFFAIRS AND MARKETING DIRECTORATE

Community Affairs and Marketing contributes to the Authority's goal of increased ridership through its marketing and promotion, service planning, customer service, community affairs, and pass sales activities. These functions are carried out on the basis of a strategy designed to improve the awareness of present and potential riders of their service options; to stimulate a change in public attitudes toward public transportation generally; to influence, as attitudes change over the long term, the travel behavior of potential riders so as to encourage MBTA use; and to follow up with programs to insure that new riders, once attracted, remain committed to the MBTA.

The directorate is organized into four units engaged in customer services, marketing, service planning, and Pass program management. The Customer Services Unit responds to complaints and requests for information, either directly or by referring callers to the appropriate Authority official. Each month this unit services thousands of telephone calls which request maps and brochures, offer suggestions and register complaints. With this responsibility, the Customer Service Unit, along with the thousands of Transportation operating personnel, are the MBTA's direct link to its customers.

A successful innovation in 1976 by the Marketing Unit, in conjunction with the Report Production section of the Treasurer's Office and the Office of Public Information, has been the rapid production and distribution of flyers informing the riding public of service disruptions, emergencies, or any other unusual occurrence on the MBTA. These flyers have alerted people to reasons why their travel plans ought to be changed or have explained, after the fact, the cause of a significant service disruption. For example, when a rectifier failure early in 1976 caused a service disruption on the Blue Line, a series of flyers was prepared and distributed to thousands of Blue Line riders explaining the cause of the failure and the status of repairs. From comments the Authority has received, this kind of service bulletin has been welcome. Besides this informational material, the Authority's standard promotional maps, brochures, and timetables have been improved upon and distributed much more widely and in a more timely manner than in the past.

The Service Planning unit, still in its formative stage in 1976, has provided major support for the Authority's implementation of the Surface Service Policy which was approved and adopted in December 1975. The unit has solicited community suggestions for service changes and additions and has responded by developing route profiles, analyzing present and potential ridership data and by generally staffing the review and deliberations of the Authority's Service Policy Committee. Additionally, this unit played a key role

in the series of seven public service forums, held in each major transportation corridor throughout 1976, at which the public was invited to make directly to MBTA top management their comments, suggestions and criticisms concerning the service being provided the 79 cities and towns. Finally, Service Planning has been responsible for monitoring and evaluating the new program of experimental local transportation service in individual communities such as Bedford, Natick and Needham.

Under the policy guidance of the Authority's Pass Program Management Committee, the Pass Program manager and his staff market a service which is available to employees of participating corporations, public agencies and not-for-profit institutions. Under this program, employees can purchase a monthly Pass, the cost of which is automatically deducted by the employer and remitted by check to the MBTA. Employees enjoy the convenience of "cashless" commuting at a slight discount and are encouraged, through the unlimited travel provisions of the Pass, to increase their riding on the MBTA during off-peak daytime hours, nights and weekends. More riders at these non-peak hours mean more safety on the MBTA, and greater perception of safety on the MBTA. Surveys have indicated that one of the major impediments to increased ridership is people's perception that the MBTA is unsafe at non-peak hours because of the relatively small number of other riders on the system. The Pass is part of a strategy to counter that perception. Employers appreciate this program for the opportunity to provide their employees with a service, and to demonstrate their cooperation with the U.S. Environmental Protection Agency's Transportation Control plan. On July 1 of this year, the Authority introduced a significantly altered Pass Program. The Pass is now issued monthly, which provides Pass customers with the option of dropping out of the program during the month they take their vacation. The monthly program has eliminated the old system of free replacement of lost or stolen permanent Passes, a system which was distributing without charge new Passes worth about \$400,000 a year at a considerable administrative cost. The Pass is now available to employers who have five or more participating employees. The cost was increased about 8.6% in order to compensate for the anticipated loss of the employee's vacation month. The selection of Passes was increased to permit increased use for suburban locations, and to permit riders of the MBTA's premium service, the express buses, the option of commuting at a discount.

Results to date for the new program are mixed. The number of participating employers has doubled, internal operations dealing with the Pass are conducted much more smoothly, and joint MBTA-employer meetings have resolved most of the administrative irritants which affect employers. However, after six months' experience with the new program, sales remain below the June level of approximately 16,000. The two principal reasons for this disappointing record are first, for the careful consumer, the program's price structure discourages many people from committing one month's travel expense in advance. Second, the specific passes offered were, in some cases, inflexible in terms of the services available. The Authority will announce changes which will address directly these two shortcomings.

During 1976, the Police Department achieved a 38 percent reduction in transit crimes compared to 1975. This was accomplished by the effective deployment of uniformed officers to the most heavily patronized stations and the assignment of plainclothes officers to investigatory and surveillance activities in known high crime areas.

While various crime categories showed reductions from 1975, one category showed an increase. The crime involved the throwing of missiles at buses. In 1976, there were 567 incidents compared to 336 in 1975, for an increase in this crime of 41 percent.

The statistics for other crime categories are shown in the following comparative chart:

<u>CRIME</u>	<u>1975</u>	<u>1976</u>	<u>Net Change</u>
Assault & Battery	307	240	-21%
Sex Offenses	41	33	-20%
Armed & Unarmed Robbery	340	292	-15%
Larceny & Missing Property	2,453	1,372	-44%
Totals	3,141	1,937	-38%

On April 9, 1976, the Police Department moved to the Cabot Transportation Center in South Boston, thus centralizing operations that were previously conducted at 45 High Street and at Dudley Station.

Other accomplishments during the year were:

--Establishment of liaison with the State Police for the purpose of developing a reporting and recording system based on statewide standards and specifications.

--Implementation of the first phase of a criminal identification program to provide the department, victims and/or witnesses with immediate access to photo identification of persons known to be involved in criminal activity on the transit system.

--Development of an anti-vandalism program that is available to local community organizations.

--Continuation of efforts to seek State and Federal funding in order to broaden the department's scope of activities in crime prevention.

The Police Department was reorganized to strengthen command and patrol supervision. Authorized manpower is 64, consisting of:

	<u>NUMBER</u>	<u>PERCENT</u>
Administration	3	4.7%
Supervision	7	11.0%
Station Patrol	31	48.4%
Car Patrol	14	21.9%
Plainclothesmen	6	9.4%
K-9 Force	2	3.1%
Prosecutor	1	1.5%
	<u>64</u>	<u>100.00%</u>

Their efforts are allocated to public protection (77%), facility patrol (16%), and internal security (7%). This manpower distribution includes one new lieutenant and one new sergeant. The department operates on five shifts, including two rotating squads which alternate on a weekly basis between the day and night shifts. Establishment of these shifts provides increased flexibility in patrol staffing, resulting in more efficient manpower deployment during high ridership hours.

OFFICE OF SAFETY

The Office of Safety's responsibility is to provide staff assistance to the Chief Executive Officer on safety matters. This assistance will take the form of identifying major safety problems in the Authority; insuring that pertinent information reaches the Chief Executive Officer in a form that facilitates decision-making; recommending new safety programs to the Chief Executive Officer; and coordinating safety programs, which have the firm commitment of support from top management.

During 1976, the former Safety and Training Department was reorganized. Training functions were transferred to the Transportation Department. The Safety functions were consolidated into an Officer of Safety. The reorganized Office of Safety, headed by a Manager of Safety, consists of fifteen people. The office functions are divided into a Programs and Procedure Section and a Records and Reports Section.

The Programs and Procedures Section's responsibilities are to devise and oversee the Authority's safety programs. Several hazard reduction and accident prevention programs in operation include: programs designed to reinforce safe driving through the use of nominal rewards and individual recognition; a prevention program that identifies locations of frequent traffic accidents and reminds drivers on the affected runs of the dangers; a preventive program aimed at industrial accidents which seeks to identify and remove causes of recurring accidents; the purchase of protective equipment and clothing; and presentation of safety films and slides.

The Records and Reports Section investigates all rapid transit, streetcar, trackless trolley, and bus accidents as well as industrial accidents (for example, accidents which occur in the MBTA carhouses and repair shops); conducts safety inspections of work sites; analyzes the safety records of individual drivers; and reports on traffic and passenger accidents to the Federal Railway Administration and to the American Public Transit Association.

In 1976, there was a 14.1 percent reduction in passenger and vehicular accidents involving buses, streetcars and trackless trolleys, and a 17.4 percent decrease over the prior three-year average. Passenger injuries were reduced 9.2 percent on the surface vehicles. On the rapid transit lines, injuries to passengers aboard trains dropped nine percent and injuries to passengers at stations (on stairways, escalators, etc.) dropped two percent.

Industrial accidents decreased from 2,179 in 1975 to 2,077 in 1976. This 4.7 percent reduction in the number of accidents represents a substantial savings in man-hours lost -- 160,139 in 1976, down from 222,526 in 1975 for a net savings in lost time of 62,387 man-hours or 28 percent.

PERSONNEL DIRECTORATE

The Personnel Directorate provides staff support and services to all departments on matters of employee compensation, performance, recruitment and promotion, absences, and affirmative action. The directorate's services include staff assistance, guidance and counseling on personnel and labor relations matters; negotiation and administration of labor contracts; screening, recruiting, examination and selection of candidates for employment, including physical examinations for present and prospective employees; design of employee training and development programs; counseling for alcoholism, drug abuse and other behavioral problems; maintenance of personnel records; and the development and implementation of an aggressive affirmative action program.

The directorate is structured into four sections, each of which is headed by a manager who reports to the Director of Personnel. The four sections are: Personnel; Employment, Workmen's Compensation and Medical Services; Labor Relations; and Equal Employment Opportunity.

This was a contract year for all unions representing MBTA employees except for the MBTA Patrolmen's Association. Bargaining was first concluded with the largest union, Local 589 (Carmen's Union), which represents approximately 3,900 employees. Negotiations with Local 589 were referred to arbitration, and the arbitrator's award was made on May 19, 1976. As in the past, agreement with Local 589 set the pattern for agreement with the balance of the bargaining units.

The provisions of the arbitration award to Local 589 provide for no across-the-board increase in base wages for the 2-year contract period, or from January 1, 1976 to December 31, 1977. The award also provided for a suspension, until January 1, 1977, of cost-of-living payments which would have been payable June 1, September 1 and December 1, 1976. The cost-of-living payment scheduled for March 1, 1976 was ordered paid. Although the Authority sought elimination of the no-layoff clause, this provision was renewed.

The two-year freeze on across-the-board wage increases represents a substantial savings to the Authority and to the taxpayer. Each one percent increase per year added to the wage base would have cost \$4,000,000 over the contract period.

The suspension of cost-of-living payments reduced 1976 expenses by approximately \$1,500,000. On January 1, 1977, hourly wage rates paid to members of Local 589 will be adjusted to incorporate the rise in cost-of-living which occurred between February and November 1976.

In addition, the Authority proposed several changes in work practices to reduce costs and increase productivity. First, the interval between "system picks" (the opportunity of a senior member of one department to bid on a vacancy in another department) was lengthened from one year to two years for Surface Lines personnel. This change will reduce the training costs borne by the Authority to prepare personnel for new positions. Second, the Authority won the right to change the hours of junior employees in the Rail Equipment Department to cover temporary vacancies. This change will reduce overtime costs. Third, the Authority was granted the right to establish and fill the job classification of carhouse repairman specialist in the Rail Equipment Department, based on improved qualifications testing. The new classification is a central component in the Authority's development of a maintenance program for the LRV's. Fourth, compressor

operators will in the future work on the track maintenance and repair gang when they are not actually operating the compressor.

During the past year, the Personnel section has evaluated every vacant position as the vacancy occurred, to determine whether it should be retained. This process has contributed to the Authority's reduction in permanent and temporary operating personnel from 6,369 at the end of 1975 to 6,019 by the end of 1976. An additional 233 employees are paid from the federally-aided capital budget.

An affirmative action program for the hiring of minorities and women by the Authority and its contractors was approved November 10 by the MBTA Board of Directors. A specific objective of the affirmative action program is to employ systematic efforts to fill all vacancies with at least 50 percent minorities and 20 percent women, with the intention to arrive at a 20 percent minority employment level by December 31, 1978. The plan formalizes the hiring practices the Authority has used over the last year--that wherever possible, the MBTA has used a 50% minority hiring posture and sought to increase female representation. Another key goal of the program is that "15 to 25 percent of each prime contract, as measured by total contract price, shall be performed by minority contractors to the extent feasible." The MBTA has plans for construction worth more than \$1 billion over the next decade.

A significant step toward an improved performance evaluation process was taken this year with the development of a new managerial performance evaluation form. The form requires evaluation of each management employee in terms of quantity and quality of work. The summary rating is keyed directly to compensation review and discussion of improvements needed.

OFFICE OF THE TREASURER-CONTROLLER

The Treasurer-Controller is responsible for general supervision of funds, investments and accounts of the Authority; federal and general accounting and auditing systems; negotiation of concession and advertising contracts; and the development and operation of the Authority's data processing systems.

The Treasurer-Controller's Office consists of five sections: Financial Management, Revenue Collection, Accounting, Federal Accounting and Auditing, and Data Processing. Each section is supervised by a Manager.

The Financial Management section controls the receipt of all bond proceeds and programs the investment of these non-operating funds and all operating revenues. It is also responsible for all insurance matters, concessions and advertising contracts, and mailing of all checks.

The Revenue Collection section collects more than \$1 million per week in fare revenue from locations throughout the Authority, counts these funds and deposits them to the Authority's bank account.

The Accounting section audits and prepares for payment the payroll (approximately 6,000 weekly checks and 375 bi-weekly checks) and all vouchers (approximately 100,000 invoices annually); prepares all accounting procedures, statements and monthly reports; audits and reports on transportation revenue; calculates the assessment of the net cost of service to the cities and towns; and supplies report production and stenographic services to all Authority departments.

The Federal Accounting and Auditing section is responsible for meeting Federal financial control and reporting requirements. These requirements are met through audits of all third party contracts; monitoring of Federal construction grants; and preparation and submission to UMTA of all financial statements and cash requisitions pertaining to UMTA grants.

The Data Processing section is responsible for the operation of the Authority's data processing systems, and for the development and programming of new systems. This section routinely handles the following functions: payroll, accounts payable, Blue Cross-Blue Shield, service costs systems, inventory, purchasing, receiving, vehicle maintenance, responsibility accounting, safety reports, timetable scheduling, and capital accounting.

In response to the large number of UMTA grants and the requirements of UMTA regulations, the Internal Auditing section has been reorganized. Two additional staff have been assigned and the entire section has been re-directed to audit of third party contracts, which are those contracts the MBTA enters into with UMTA participation. This reorganization has substantially increased audit capability.

Development of the unit property identification records system for non-expendable capital assets has proceeded. Upon completion, this system will provide each manager with a monthly inventory of all non-expendable property under his control. With such an up-to-date inventory, reductions in losses from theft, vandalism and misuse are expected.

MATERIALS DIRECTORATE

The primary function of this directorate is to purchase, receive, store and distribute materials in such quantities as are necessary for the successful operation of the various departments throughout the Authority.

The department is organized into five sections, all reporting to the Director of Materials. The sections are: Purchasing, Purchasing Analysis, Central Stores, Inventory Control, and Building Services.

The Director of Materials develops and recommends to the Chairman specific material policies and plans, and implements approved policies and plans through the establishment of sound material control practices and procedures. The Director also negotiates major purchases and, in his capacity as Program Director, develops, executes, reviews and analyzes the Material Program.

The Purchasing Section purchases major items at minimum cost, consistent with stringent quality and delivery standards. In addition, it secures quotations from qualified suppliers and reviews them for purposes of establishing the lowest responsible bidders. The Purchasing Section also expedites material orders and arranges for the sale of scrap and obsolete materials.

The Purchasing Analysis Section develops, establishes and administers purchasing analysis and evaluation techniques aimed at purchasing materials and services to functional specifications at the lowest possible cost, highest quality and reliability, and shortest delivery cycle.

The Central Stores Section has two main storerooms at Everett and Charlestown, plus a satellite storeroom at the Riverside complex. The storerooms receive, shelve, dispense and account for all materials ordered by the Authority. The Inventory Control Section administers and controls the material inventory. It assigns serial numbers to new items of material and suggests substitutes if other stock items are unavailable. It spot checks the inventory on a periodic basis to assure accuracy and control. The Building Services Section is responsible for the janitorial and groundskeeping function at the Arborway Administration Building. Other major responsibilities include telephone service at High Street, messenger service at Arborway and the receipt and distribution of materials and supplies for the Administration Building.

In the past year, the department obtained bid proposals and placed contracts for the purchase of 128 new diesel transit buses. It also managed delivery and acceptance of fifty new trackless trolleys. It continued the processing and procurement of approximately 150 Capital Equipment items approved in the Phase II and Phase III Plant Improvement Programs. Also, the department processed and procured Capital items in conjunction with the Green Line Construction Project and other approved projects, and obtained bid proposals and placed contracts for the purchase of new rapid transit cars for the Orange and Blue Lines.

OFFICE OF THE GENERAL COUNSEL

The Office of the General Counsel provides legal services to other departments and to the Chairman and the Board of Directors. It handles the legal aspects of the Authority's relationships with federal, state and local governments and with private business.

The principal activity within the General Counsel's Office is the management of injury and damage suits in which the MBTA is a party. These suits result from motor vehicle accidents, accidents on the Authority's property, and similar other occurrences. Two-thirds of the General Counsel's staff is devoted to this purpose in such capacities as investigators, adjusters, legal aides, trial attorneys, and clerical personnel.

Another major activity is work related to land damage suits resulting from land takings, right-of-way and eminent domain proceedings. Five persons are engaged in this function.

Other functions are performed by the Railroad Labor Section, the Legislative Section, the Contract Preparation Section and the Hearing Officer Section.

One of the major objectives in 1976 was to divest itself of "quasi-legal" functions. The Workmen's Compensation Section was transferred to the Personnel Department and accident investigators were placed in Safety. These moves enabled the department to concentrate its efforts in greater detail on purely legal matters. In 1976, the General Counsel's Office was extensively involved in disputes arising from the provisions of Section 13(c) of the Urban Mass Transportation Act; negotiations dealing with the acquisition of the B & M lines and equipment, which were formally transferred to the MBTA on December 27, 1976; review of contracts and change orders necessary to the Authority's operating and construction activities; and preparation of new and renewed leases and concession contracts.

1976 LEGISLATION

The following Acts passed by the General Court in 1976 affect the Authority:

- Chapter 4 - An Act to restructure the short-term debt of the Commonwealth and certain agencies and authorities thereof.
(Amends Chapter 161A in regard to the MBTA's debt structure.)
- Chapter 251 - An Act authorizing the Board of Directors of the MBTA to designate one or more members of said Board to hear certain matters relating to the employment and compensation of police officers of the Authority.

- Chapter 256 - An Act providing penalties for the fraudulent use of passes on facilities of the MBTA.
- Chapter 283 - 1977 State Budget
(Contains contract assistance for MBTA and outside rail communities.)
- Chapter 298 - An Act authorizing and directing the University of Massachusetts to convey a certain parcel of land in the City of Boston to the United States of America for the John Fitzgerald Kennedy Library and authorizing and directing the Metropolitan District Commission to establish a John Fitzgerald Kennedy Park in the City of Cambridge and for other purposes.
(Provides for moving of certain MBTA facilities at Harvard Square).
- Chapter 370 - An Act authorizing the Town of Andover to pay a sum of money to the MBTA.
- Chapter 439 - An Act prohibiting the MBTA from locating a mass transportation facility within a certain distance of Arlington Catholic High School.

1977 LEGISLATIVE PROGRAM

The following bills were filed by the Authority for legislative action in 1977:

1. An Act relative to the financing of the MBTA.

This proposal provides 50 percent contract assistance for MBTA net cost of service and 100 percent for the Authority's net additional expense of providing commuter rail service to outside communities. This is a permanent proposal.

2. An Act relative to the reimbursement of fuel and special fuel excises to those providing mass transportation services.

Adoption of this proposal would provide 100 percent reimbursement for fuel excises not currently reimbursed.

3. An Act authorizing the MBTA to lease air rights over its transportation facilities.

This legislation would allow the Authority to lease air rights for a period up to 99 years. Provision is made in the bill for the payment of taxes or a sum of money in lieu of taxes. It also provides that local laws and regulations shall apply.

4. An Act relative to the transfer of all vehicular bridges carrying public ways over the tracks or rights of way of railroads within the Commonwealth.

This proposal provides that the Massachusetts Department of Public Works take over certain vehicular bridges owned by the MBTA. Legislation previously enacted provided that the M.D.P.W. take over care and control of railroad bridges.

5. An Act authorizing the MBTA to make entry on private land for the purpose of surveys, soundings and drillings.

This would allow the Authority to enter upon private property prior to construction to make certain tests and surveys. The bill provides reimbursement for any damage done.

6. An Act relative to compliance with federal law, regulation and practice by the MBTA.

Section 29 of Chapter 161A directs the Authority to obtain federal funds. The third sentence of Section 29 provides in essence that federal law, regulations and practices governing federal assistance shall override any inconsistent provisions of Chapter 161A. This proposal would include all laws relating to the MBTA.

7. An Act amending the law relative to the evasion of payment of fare.

This would amend the existing statute in order to clarify the right of arrest by including the word "station". The fine is also increased to a minimum of \$50. and a maximum of \$100.

8. An Act providing scholarships to children of MBTA police officers who are killed or die in the performance of duty.

There is present provision in the law for scholarships to be granted to the children of permanent police officers. Most agencies are specifically named, the MBTA is not. This proposal would eliminate any question of doubt that MBTA police are included in the law providing scholarships to children of police officers who die in the line of duty.

9. An Act authorizing and directing the Metropolitan District Commission to convey certain parcels of land in the Cities of Somerville and Medford to the MBTA and to grant permanent surface and subsurface easements for drainage purposes along the Boston & Maine Railroad right-of-way in these two cities.

This legislation is necessary in order to comply with the agreement between the MDC and the MBTA dated December 8, 1972.

10. An Act further regulating smoking in public conveyances.

The present statute passed in 1968 contains language providing that one must be requested to cease smoking. This had led to many confrontations between an alleged offender and the police. This legislation deletes the language requiring that a person must be requested to cease smoking.

11. An Act repealing the law relative to the payment of extra fares on railroad trains.

An existing 1906 statute provides that a 10¢ refundable surcharge may be levied upon those obtaining tickets from a conductor on a train instead of at the ticket office. Repeal would allow carriers to set policy.

12. An Act amending the law relative to temporary borrowing by the MBTA.

This would permit the State Treasurer to advance current expense funds to the Authority. The present method requires the Authority to certify to the State Treasurer an amount which does not exceed the estimated net cost of service to date.

13. An Act relative to arbitration procedures between employee organizations and the Board of Directors of the MBTA.

This legislation would provide guidelines for arbitration and procedures. An important part of this proposal is the inclusion of certain factors that must be considered in making a determination.

14. An Act prohibiting the charging of tolls for MBTA vehicles.

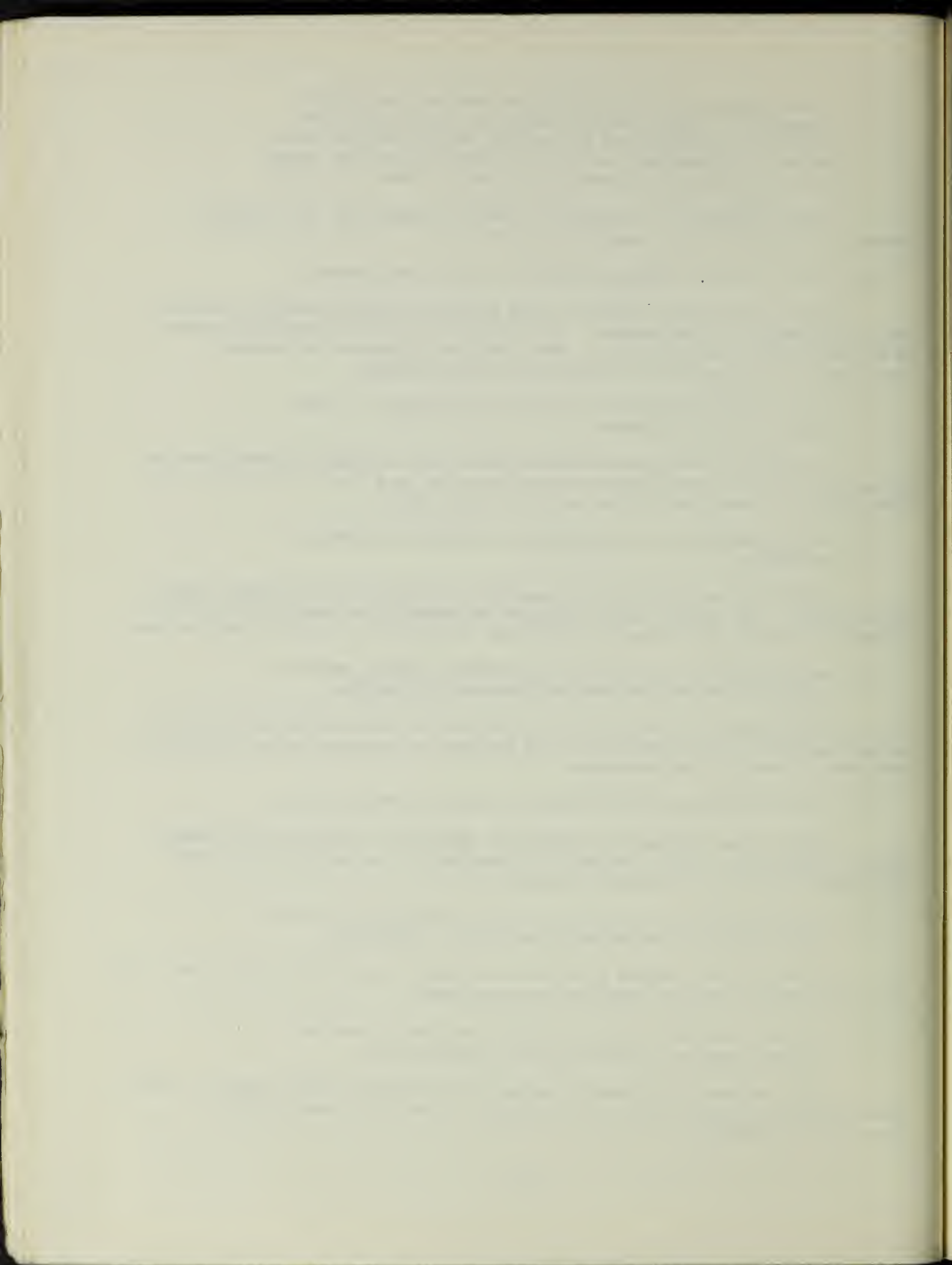
This proposal allows the Authority's vehicles to travel on the Turnpike without paying tolls. Under Chapter 161A, Section 18, the Authority is exempt from such tolls so far as constitutionally possible.

15. An Act relative to the use of roads and boulevards under the jurisdiction of the Metropolitan District Commission.

This proposal attempts to give the Authority the ability to use roads under the jurisdiction of the MDC which are now restricted.

16. An Act requiring notice to the MBTA relative to road and highway repairs, construction and reconstruction.

This proposal would require notice to the Authority where repairs or work is to be done on streets used by the Authority. This is to avoid possible disruption of service.



WHERE THE RIDERS ARE

Revenue from transportation--quarters, nickels and dimes--pays for approximately one-fourth of the cost of the public transportation network known as the MBTA.

The tables below show the revenue from the various types of transportation on the surface and on the rapid transit subway system. The streetcar and bus revenue figures from each "rating station"--the garage where bus and streetcar operators pick their route on the basis of their seniority rating--gives a further breakdown of where people use public transportation.

Revenue from Transportation, 1976

Rapid Transit

Orange Line (Malden-Forest Hills)	\$ 6,087,366
Blue Line (Bowdoin-Wonderland)	1,538,550
Red Line (Harvard-Ashmont)	5,794,095
Red Line (South Shore Extension to Quincy)	2,745,652
Green Line Central Subway (Kenmore-Lechmere)	6,296,546
<u>Total Rapid Transit Lines</u>	<u>\$22,462,209</u>

Surface Lines

Streetcar (Green Line: Riverside, Beacon, Commonwealth, Arborway; Mattapan-Ashmont)	\$ 5,813,483
Trackless Trolley (Cambridge, Belmont, Watertown)	1,321,244
Bus (194 Routes)	23,295,885
<u>Total Surface Lines</u>	<u>\$30,430,612</u>

<u>Chartered Bus</u>	<u>\$ 229,494</u>
TOTAL TRANSPORTATION REVENUE	\$53,122,315

Streetcar Revenue, 1976 by Rating Stations

Reservoir (Green Line: Beacon and Commonwealth)	\$2,925,364
Riverside (Green Line)	1,425,019
Arborway (Green Line)	1,431,441
Mattapan-Ashmont	31,659
TOTAL STREETCAR REVENUE	\$5,813,483

Bus Revenue, 1976 by Rating Stations

Cabot-Albany, Boston	\$7,436,629
Arborway, Boston	3,320,675
Somerville and Arlington Heights	3,291,984
Salem Street, Medford; Charlestown; Eagle Street, East Boston	5,537,502
Lynn	1,700,175
Quincy	1,834,861
Tewksbury	174,059
TOTAL BUS REVENUE	\$23,295,885

Revenue to Commuter Railroads

Boston & Maine	\$ 4,850,000
Penn Central/Conrail	2,300,000
Total Commuter Railroads	\$ 7,150,000

THE HISTORY OF THE

... of the ...

CHAPTER I

...

SECTION I

...

SECTION II

...

SECTION III

...

CHAPTER II

...

PUBLIC TRANSPORTATION DEFICIT: A BRIEF HISTORY

Since 1918, it has been public policy in Massachusetts that the transportation network in Greater Boston is a public service of such benefit to individuals, businesses and government that the public through taxation pays the difference between the income and the expenses of operating the service.

That tradition began July 1, 1918 when five public trustees began operating the Boston Elevated Railway under the lease conditions of the Public Control Act which was passed May 22, 1918. This was six years after the Boston Elevated Railway Co. reported its first deficit of \$492,000 in 1912. In 1913, the company lost \$496,000. It made small surpluses in 1914, 1915 and 1916, but in 1917 it lost \$118,000. In the first half of 1918, when it was still under private control, losses amounted to \$572,000. But maintenance of the plant had been deferred as the company awaited public takeover. Consequently a large public investment had to be made and the deficit for the first 12 months of public control was \$3.1 million.

In 50 of the 58 years since 1918, public transportation has incurred a deficit. The eight years of surplus were 1922, 1923, 1925, 1927, 1928, 1929, 1942 and 1943. The surplus was never more than \$1.9 million. The Metropolitan Transit Authority, which ran the system from 1948 through August 3, 1964, had deficits ranging from \$2.8 million to \$21 million.

Since 1957, the last year that income exceeded the cost of wages and fringe benefits alone, these two major expense categories have increased 295 percent whereas income increased only 57 percent. In 1976, wages and fringe benefits cost more than twice the amount of transportation revenues while other operating expenses, such as materials and fuels, cost more than one-half of the transportation revenues received.

The source of public support for public transit, however, continues to grow. The Federal Government is now providing operating assistance under the Urban Mass Transportation Assistance Act of 1974. The allocations to the MBTA are as follows: for the 1975 federal fiscal year, \$6,532,254; 1976 fiscal year, \$10,887,090; Transition Quarter, \$2,720,900; 1977 fiscal year, \$14,148,600; fiscal 1978, \$16,869,500; fiscal year 1979, \$18,502,000; and fiscal year 1980, \$16,869,500. As of December 31, 1976, the Authority had received a total of \$34,282,211. This Federal aid, combined with continuing state and local aid maintains the tradition of public support for public transportation in the Boston area. Otherwise, because total expenses are four times greater than the revenue from fareboxes, a passenger now paying 25 cents a ride would have to pay one dollar a ride. Needless to say, at one dollar a ride, ridership on the MBTA which carries about 60 percent of the rush hour commuters, would plummet with severe adverse effects on the development of Greater Boston.

THEORY OF THE EARTH AND ITS HISTORY

The theory of the earth and its history is a branch of geology which deals with the origin and development of the earth and its various parts. It is a science which seeks to explain the processes which have shaped the earth and its features, and to determine the time and sequence of these processes. The theory of the earth and its history is based on the study of the earth's rocks and fossils, and on the principles of geology. It is a science which is constantly developing, as new discoveries are made and new theories are proposed. The theory of the earth and its history is a branch of geology which deals with the origin and development of the earth and its various parts. It is a science which seeks to explain the processes which have shaped the earth and its features, and to determine the time and sequence of these processes. The theory of the earth and its history is based on the study of the earth's rocks and fossils, and on the principles of geology. It is a science which is constantly developing, as new discoveries are made and new theories are proposed.

MBTA ASSESSMENT PROCEDURES

A question frequently heard from our customers is "how is my town's MBTA assessment determined?" All 79 cities and towns in the MBTA district pay a share of the MBTA's yearly deficit or net cost of service. The assessment formulas for sharing the deficit were originally spelled out in state legislation passed in 1964 when the old MTA district, serving 14 cities and towns, was enlarged to the present regional transportation district and renamed the MBTA. The formulas have been amended by the legislature from time to time in an effort to make the assessment more fair and equitable.

The legislation defines two basic types of MBTA service, "express service" and "local service". Express service refers to rapid transit service on controlled rights of way, while local service refers to MBTA buses, trackless trolleys and streetcars in local streets. The net cost of providing each of these types of service is calculated separately and allocated by a different formula.

type of service	portion of deficit	who pays	basis for assessment
EXPRESS	75%	all 79 cities & towns	number of commuters
	25%	cities & towns with rapid transit & R.R.	boarding counts (except new stations)
LOCAL		65 cities & towns	
	50%	14 cities & towns	population (1970)
	50%	cities & towns with bus service	share of losses sustained locally

Express Service. Legislation has divided the assessment for the cost of express service into two parts, a 75% portion, and a 25% portion, each distributed in a different fashion.

The 75% portion of the net cost of express service is shared by all 79 cities and towns in the MBTA, based on the number of "commuters" living in each municipality. The number of commuters in each city and town was determined by a special study in 1963 and included all people who traveled outside their town to their place of work, whether they used public transportation or not. In the case of the City of Boston, the number of commuters was established so that Boston would be responsible for not less than 30% of this 75% portion.

The remaining 25% of the net cost of express service is shared only by those cities and towns that have one or more express service stations. This part of the assessment is proportional to the number of passengers boarding the rapid transit lines at stations in each community. Each year counts are taken to determine the

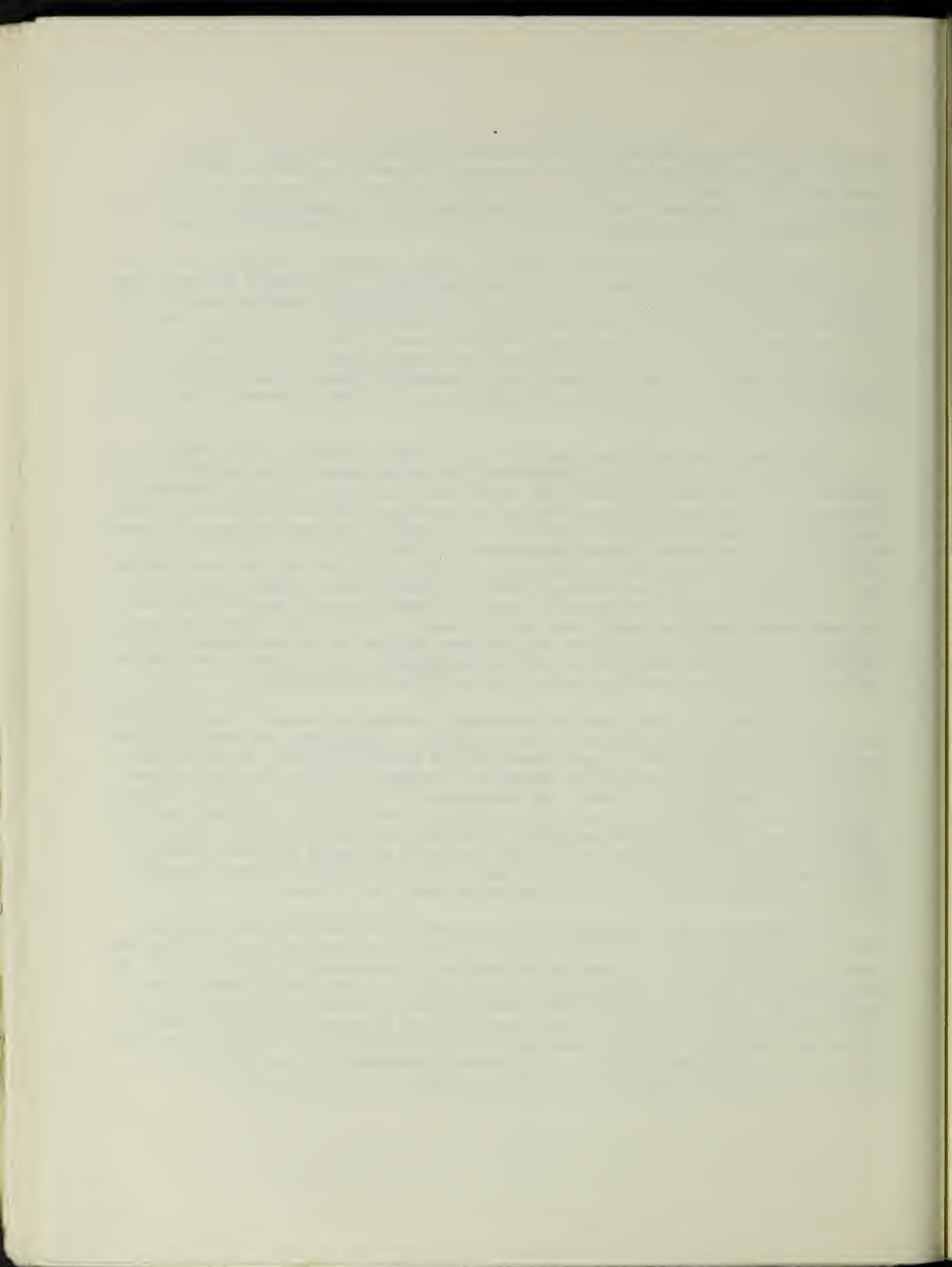
number of passengers boarding at each station and within each town. However, in 1973, the legislature amended the assessment procedure to exclude from the boarding counts passengers boarding at new rapid transit stations opened after July 1973. This amendment means that a new station in a community will not result in an increase in its assessment for the 25% portion of express service costs.

Local Service. Local service refers to buses, trackless trolleys, and streetcars operating on local streets. As in express service, the formula for assigning the local service deficit is divided into two parts, in this case two equal or 50% portions. Half of the local service deficit is allocated on the basis of population, as determined by the most recent Federal Census (1970); but on the weight of 14 Cities and Towns and the 65 Cities and Towns independently. The other 50% of the deficit from local service operations is shared by those cities and towns that have such service, and is based on the proportion of losses incurred in each city or town.

To determine the operating loss incurred in each community, the average operating cost per mile is first determined for the different types of MBTA local service -- bus, trackless trolley, and streetcar. The yearly mileage operated on each route is then used to figure the yearly operating cost for that route. Fare box revenue is sampled on each route four times yearly, and the difference between operating cost and annual revenue determines the yearly profit or loss for each route. This profit or loss is allocated to each city or town on the route, on the basis of mileage. If a town elects to have no local service, buses then make no stops in that town, and the profit or loss from routes passing through that town is distributed among the other towns on the route. For all cities and towns with local MBTA service, the losses and profits from the routes in the community are totaled. Half of the MBTA's local service assessment is then based on the percentage of local service operating losses incurred in each municipality.

As an example of local service assessment, consider a six-mile long bus route, with four miles in Town A and two miles in Town B. Assume that the operating cost for the route was \$100,000. a year (based on the Average MBTA bus operating cost per mile and the total route-miles operated). Assume also that fare box revenue on the route was \$40,000. a year. The operating deficit would be \$60,000. a year, the difference between operating cost and revenue. Half of this \$60,000. deficit (\$30,000.) would be allocated among the 14 Cities and Towns and the 65 Cities and Towns on the basis of population, and half would be allocated to Towns A and B. Town A would have to pay \$20,000. and Town B would be assessed \$10,000. because the bus route operated twice as many miles in Town A as in Town B.

The MBTA assessment procedures can be summed up by pointing out two objectives in the formulas. The first objective is to recognize that the 79 cities and towns in the MBTA district comprise one regional transportation district, that all municipalities benefit by the system, and therefore all must share some of the deficit. The second objective is to assess a greater portion of the cost of operating the MBTA on those cities and towns that get a greater degree of service. To relieve the burden on local governments, in recent years the state has begun to pay for part of the MBTA deficit. The Federal government is also providing operating subsidies for mass transit under legislation enacted in 1974.



COMPREHENSIVE PROGRAM FOR MASS TRANSPORTATION

The Executive Office of Transportation and Construction has been responsible for the Comprehensive Program for Mass Transportation since January 1, 1975, in accordance with Chapter 161A, Section 5(g) and (h), of the General Laws of the Commonwealth as amended by Section 7 of Chapter 1140, Acts of 1973.

The statute states that the Authority's capital investment program and plans for mass transportation "shall be developed in consultation and cooperation with the Authority, and in consultation with the Executive Office of Communities and Development, the Metropolitan Area Planning Council, and such other agencies of the Commonwealth or of the Federal Government as may be concerned with said program and plans." The program and any revisions are subject to the approval of the Advisory Board.

The program must include a long-range plan for the construction, reconstruction, or alteration of mass transportation facilities within the Authority's district; a schedule for the implementation of the program, and comprehensive financial estimates of cost and revenues.

In 1976, the Executive Office of Transportation and Construction prepared a draft Ten-Year Program for Mass Transportation and its technical supplement. During the year, 10 public workshops on the draft program were held by the Advisory Board's Transit Development Committee. Approval of the program by the full membership of the Advisory Board will be sought in 1977.


The new Ten-Year Program will be the first comprehensive revision of the Program for Mass Transportation that was approved in 1966 and modified in 1971.

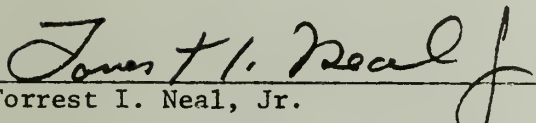
The balance sheet and statement of long-term debt of the Massachusetts Bay Transportation Authority as of December 31, 1976, and the related statements of revenue and cost of service, unreimbursed cost of service, and source of disposition of funds for the fiscal year ended December 31, 1976, together with notes relating to these financial statements, are appended to this report.

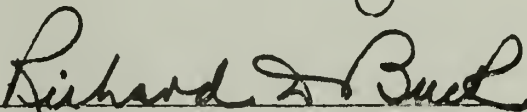
Respectfully submitted,

Board of Directors

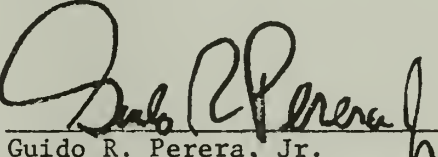
Massachusetts Bay Transportation Authority


Robert R. Kiley, Chairman


Forrest I. Neal, Jr.


Richard D. Buck


John J. McCarthy


Guido R. Perera, Jr.

THE UNIVERSITY OF CHICAGO
LIBRARY
540 EAST 57TH STREET
CHICAGO, ILL. 60637
TEL. 733-4331

THE UNIVERSITY OF CHICAGO
LIBRARY
540 EAST 57TH STREET
CHICAGO, ILL. 60637
TEL. 733-4331





PART II

FINANCIAL STATEMENTS

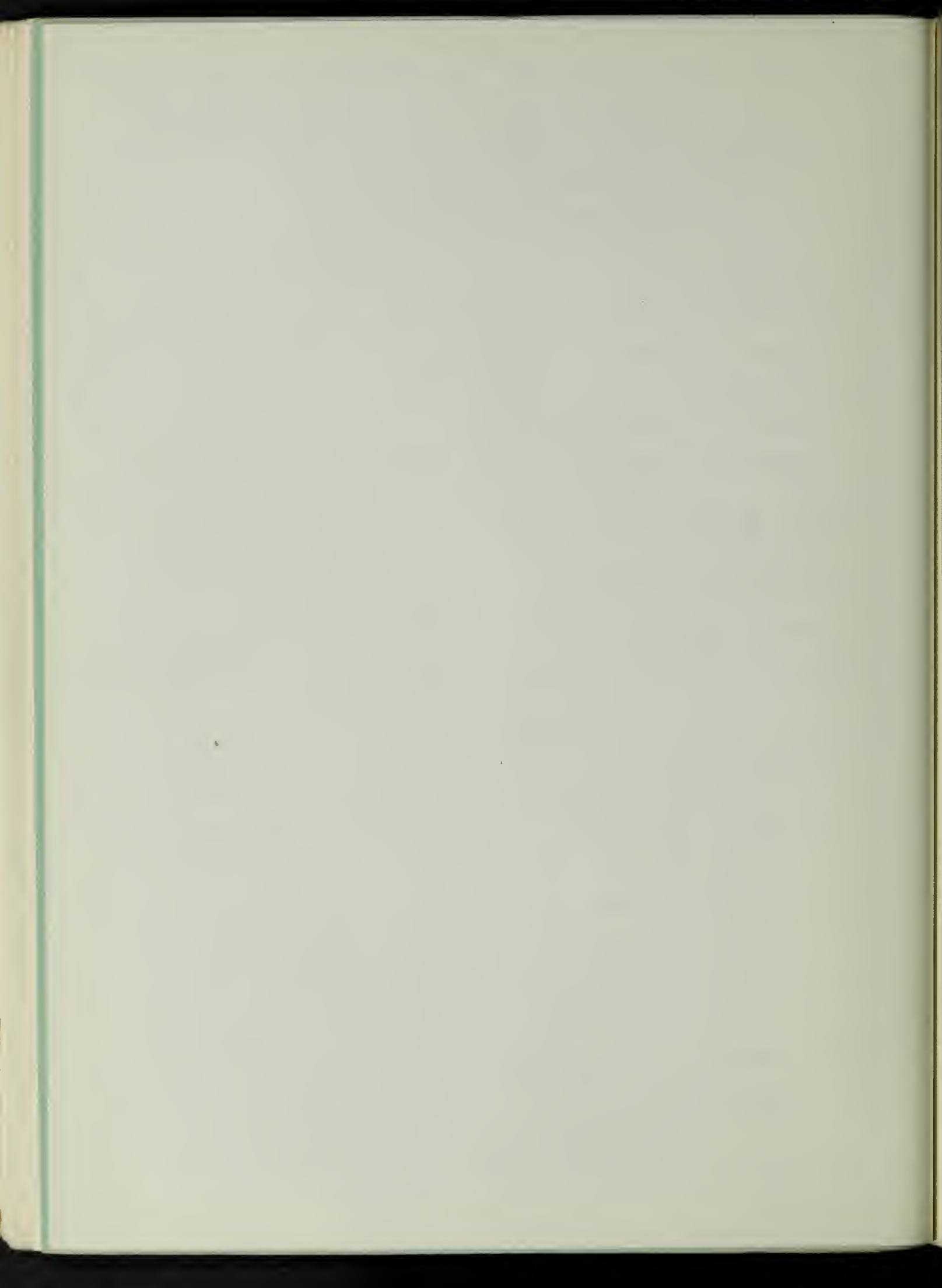
DECEMBER 31, 1976 AND 1975

The Authority's financial statements were audited by Arthur Andersen & Co., independent public accountants, and their report is included with the following financial statements:

- Balance Sheet - December 31, 1976 and 1975
- Statement of Revenue and Cost of Service for the Years Ended December 31, 1976 and 1975
- Statement of Unreimbursed Cost of Service for the Years Ended December 31, 1976 and 1975
- Statement of Changes in Financial Position for the Years Ended December 31, 1976 and 1975
- Statement of Bonds Payable - December 31, 1976 and 1975
- Notes to Financial Statements - December 31, 1976 and 1975

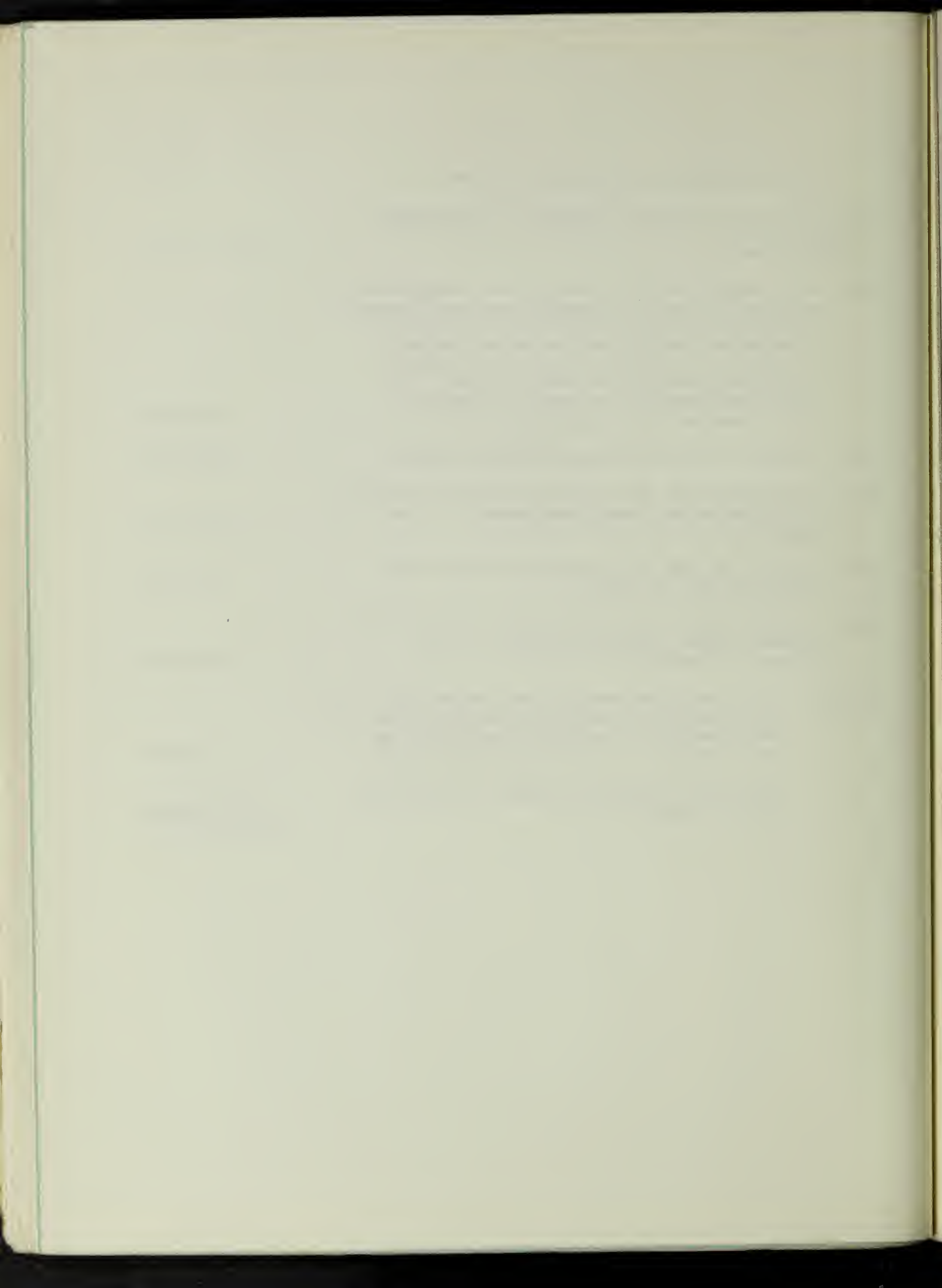
Difference in Accounting Methods

The audited financial statements historically reflect a different amount for "Cost of Service in Excess of Revenue" than is shown on the Authority's "Statement of Net Cost of Service - By Express and Local" due to different methods of accounting for certain costs and revenues. The audited statements include certain non-cash expenditures such as depreciation (computed based on the useful lives of the assets) and interest on Federal loans, in cost of service, and exclude from operating revenue reimbursements from the state and communities outside the MBTA district, whereas the Authority includes principal payments on debt as an expense in lieu of depreciation, and certain reimbursements in income.



The two amounts are reconciled as follows:

"Cost of Service in Excess of Revenue" per Authority's "Statement of Net Cost of Service - By Express and Local" (page 2)	\$ (162,776,215)
ADD: Amount subtracted by the MBTA in the "Statement of Net Cost of Service - By Express and Local" (page 2) for charges and credits made directly to the "Unreimbursed Deficit" account during the year. In order not to distort the net cost of service, it is added back into the deficit as the "Unreimbursed Deficit" on page 2 to arrive at "Net Assessable Cost of Service".	(950,508)
ADD: Interest on the Penn Central Loan (See Note U)	(1,337,129)
ADD: The reimbursement from outside communities, carried by the MBTA as an income item because it is not assessable to other cities and towns	(1,051,897)
ADD: Gasoline and fuel taxes reimbursed by the state carried by MBTA as income.	(405,131)
ADD: The amount that depreciation expense exceeded bond payments during the year (See note (1) (f) paragraph 2, page xi)	(4,498,811)
SUBTRACT: The credit from rents on Penn Central land which is used to reduce interest due on the Penn Central loan and thus never enters the MBTA assessable cost of service (see above)	12,891
Total Cost of Service in Excess of Revenue per Audited Statement	<u><u>\$ (171,006,800)</u></u>



ARTHUR ANDERSEN & Co.

BOSTON, MASSACHUSETTS

To the Board of Directors of

Massachusetts Bay Transportation Authority:

We have examined the balance sheet and statement of bonds payable of the MASSACHUSETTS BAY TRANSPORTATION AUTHORITY (a political subdivision of the Commonwealth of Massachusetts) as of December 31, 1976, and December 31, 1975, and the related statements of revenue and cost of service, unreimbursed cost of service, and changes in financial position for the years then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying financial statements present fairly the financial position of the Massachusetts Bay Transportation Authority as of December 31, 1976, and December 31, 1975, and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles consistently applied during the periods.

Arthur Andersen & Co.

Boston, Massachusetts,
March 18, 1977.

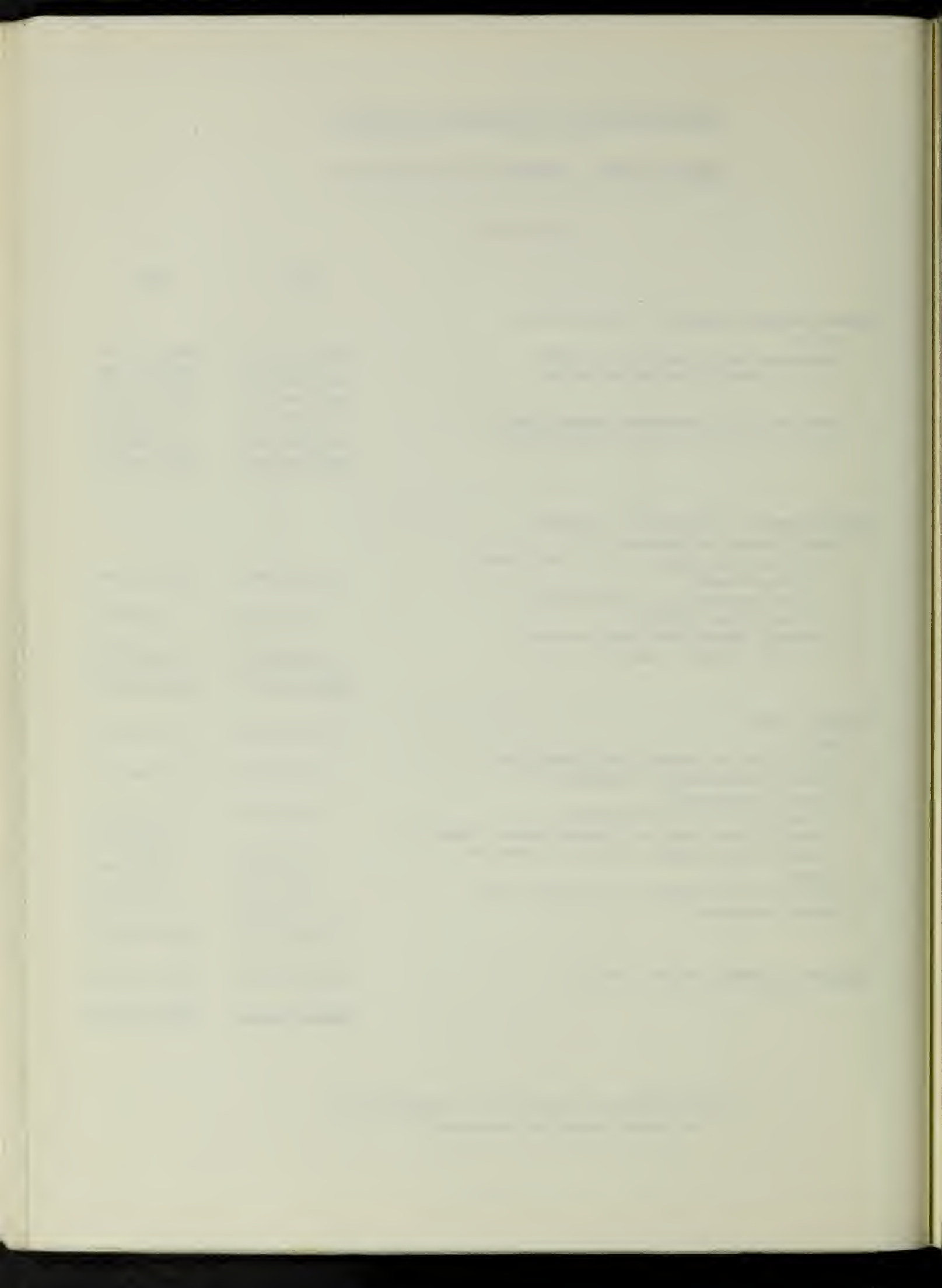
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

BALANCE SHEET - DECEMBER 31, 1976 AND 1975

A S S E T S

	<u>1976</u>	<u>1975</u>
TRANSPORTATION PROPERTY, at cost (Notes 1 and 6):		
Transportation property in service	\$ 581,350,076	\$ 507,445,780
Less - Reserve for depreciation	<u>138,000,457</u>	<u>128,213,734</u>
	\$ 443,349,619	\$ 379,232,046
Construction in progress (Notes 1 and 6)	63,071,561	75,408,185
Property held for expansion (Note 11)	<u>58,987,700</u>	<u>19,485,000</u>
	<u>\$ 565,408,880</u>	<u>\$ 474,125,231</u>
 SPECIAL FUNDS, consisting of Cash and Certificates of Deposit:		
Construction funds, held by the bond fiscal agent	\$ 27,255,841	\$ 56,181,885
Funds received for relocation of facilities (Note 3)	269,762	269,762
Federal grants and other special funds (Notes 1 and 8)	<u>943,482</u>	<u>1,170,960</u>
	<u>\$ 28,469,085</u>	<u>\$ 57,622,607</u>
 CURRENT ASSETS:		
Cash	\$ 2,992,898	\$ 1,778,538
Certificates of Deposit and Securities under Agreements to Repurchase	34,271,696	17,056,927
Accounts receivable -		
Commonwealth of Massachusetts	30,042,372	12,232,073
Federal Department of Transportation (Note 12)	-	11,172,532
Boston Redevelopment Authority (Note 8)	597,071	1,858,187
Other	2,135,347	4,401,480
Materials and supplies, at average cost	7,570,245	6,954,028
Prepaid expenses	<u>213,614</u>	<u>457,091</u>
	<u>\$ 77,823,243</u>	<u>\$ 55,910,856</u>
 DEFERRED CHARGES, (Notes 1 and 9)	<u>\$ 11,711,995</u>	<u>\$ 10,912,384</u>
	<u>\$ 683,413,203</u>	<u>\$ 598,571,078</u>

The accompanying notes are an integral part
of these financial statements



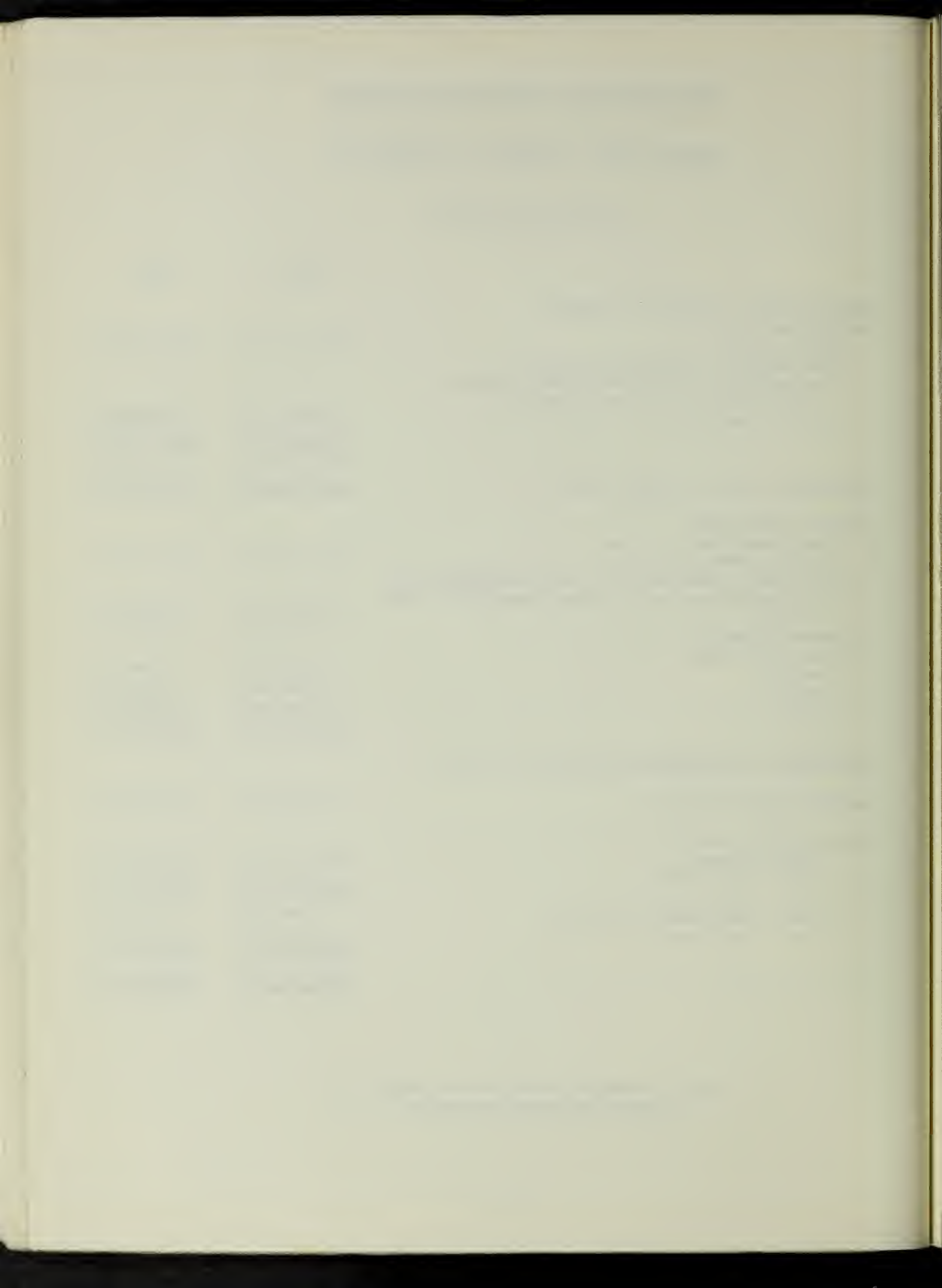
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

BALANCE SHEET - DECEMBER 31, 1976 AND 1975

L I A B I L I T I E S

	<u>1976</u>	<u>1975</u>
LONG-TERM DEBT, exclusive of current maturities (Note 5):		
Bonds payable	\$334,532,558	\$346,261,817
Loans payable to Federal Department of Transportation, including accrued interest of \$5,280,801 in 1976 and \$3,943,672 in 1975 (Note 11)	<u>48,941,263</u>	<u>23,443,672</u>
	<u>\$383,473,821</u>	<u>\$369,705,489</u>
UNREIMBURSED COST OF SERVICE (Note 1)	<u>\$ (3,535,379)</u>	<u>\$ (4,485,887)</u>
CURRENT LIABILITIES:		
Current maturities of bonds payable (Note 5)	\$11,729,259	\$11,730,259
Notes payable (\$50,000,000 @ 4.19% due December 30, 1977 and \$30,000,000 @ 9% due December 31, 1976) (Note 5)	50,000,000	30,000,000
Accounts payable	12,486,546	11,926,750
Accrued liabilities -		
Payroll	1,907,226	1,390,747
Interest	4,806,887	4,961,651
Other	<u>2,105,662</u>	<u>1,596,341</u>
	<u>\$83,035,580</u>	<u>\$61,605,748</u>
COMMITMENTS AND CONTINGENCIES (Notes 1, 4 and 6)		
DEFERRED CREDITS (Note 3)	<u>\$6,579,707</u>	<u>\$6,795,176</u>
GRANTS (Notes 1 and 8):		
Federal grants	\$220,230,654	\$164,880,287
Less - Amortization	<u>17,925,051</u>	<u>11,606,084</u>
	\$202,305,603	\$153,274,203
Boston Redevelopment Authority	11,999,479	11,821,970
Less - Amortization	<u>445,608</u>	<u>145,621</u>
	<u>\$213,859,474</u>	<u>\$164,950,552</u>
	<u>\$683,413,203</u>	<u>\$598,571,078</u>

The accompanying notes are an integral part of these financial statements.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF REVENUE AND COST OF SERVICE

FOR THE YEARS ENDED DECEMBER 31, 1976 AND 1975

	<u>1976</u>	<u>1975</u>
OPERATING REVENUE:		
Transportation	\$53,122,315	\$51,275,620
Other	<u>1,956,749</u>	<u>1,418,335</u>
	<u>\$55,079,064</u>	<u>\$52,693,955</u>
OPERATING EXPENSES (Note 10):		
Transportation service	\$79,411,111	\$75,887,100
Maintenance	41,620,209	38,026,664
Electric power	13,236,682	12,827,738
Depreciation and amortization (Notes 1 and 8)	15,904,069	11,376,802
General and administrative expenses -		
Salaries and wages	8,854,490	8,493,288
Employee pension and insurance benefits (Notes 1 and 4)	23,548,239	21,731,275
Injuries and damages and workmen's compensation claims (Note 1)	4,365,069	3,900,194
Other	<u>3,934,247</u>	<u>3,106,478</u>
	<u>\$190,874,116</u>	<u>\$175,349,539</u>
Operating loss	\$ (135,795,052)	\$ (122,655,584)
OTHER INCOME, including interest of \$3,859,605 in 1976 and \$11,410,152 in 1975	3,913,318	11,724,240
INTEREST EXPENSE, including \$17,118,072 on long-term debt in 1976 and \$18,697,904 in 1975	(21,145,635)	(26,045,982)
RAILROAD COMMUTER SUBSIDIES, including amortization of the original Railroad Contract Assistance Program of \$325,000 in both 1976 and 1975 (Notes 1, 2 and 9)	<u>(17,979,431)</u>	<u>(14,887,764)</u>
Cost of service in excess of revenue	<u>\$ (171,006,800)</u>	<u>\$ (151,865,090)</u>

The accompanying notes are an integral part of these financial statements.

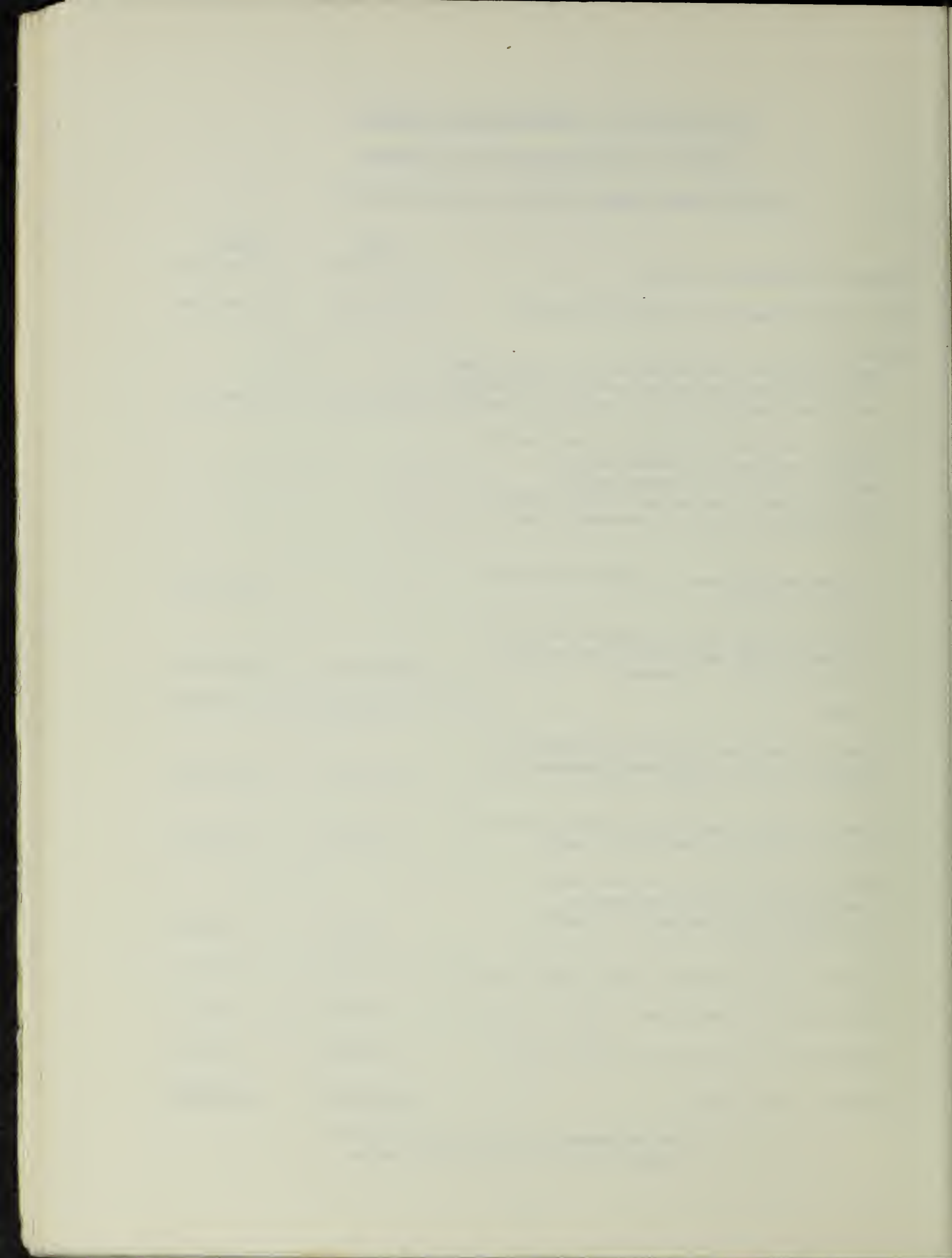
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF UNREIMBURSED COST OF SERVICE

FOR THE YEARS ENDED DECEMBER 31, 1976 AND 1975

	<u>1976</u>	<u>1975</u>
BALANCE AT BEGINNING OF YEAR	\$4,485,887	\$7,453,044
ADD - Cost of service in excess of revenue	171,006,800	151,865,090
DEDUCT:		
Cost of service reimbursed by the Commonwealth of Massachusetts to be assessed to the cities and towns constituting the Authority (Note 7)	125,870,494	64,703,222
Contract Assistance, portion of the cost of service paid by the Commonwealth of Massachusetts in accordance with a contract for financial assistance between the Authority and the Commonwealth (Note 7)		
Assistance pursuant to Chapter 283 of the Acts of 1976	-	52,370,000
Assistance pursuant to Chapter 563 of the Acts of 1964 and Chapter 1140 of the Acts of 1973, as amended	20,468,582	20,828,444
Other	519,082	275,563
Federal Operating Assistance pursuant to Section 5 of the Urban Mass Transportation Act of 1964, as amended (Note 12)	16,868,565	11,172,532
Cost of service reimbursed by the cities and towns outside the Authority's area	1,051,897	1,003,701
State diesel and gasoline fuel taxes reimbursable to the Authority in accordance with Section 2 of Chapter 563 of the Acts of 1964	405,131	402,426
Amortization of Federal grants (Notes 1 and 8)	6,305,902	3,763,070
Amortization of BRA grants (Notes 1 and 8)	299,987	145,621
Amortization of deferred credits (Note 3)	<u>167,668</u>	<u>167,668</u>
BALANCE AT END OF YEAR	<u>\$3,535,379</u>	<u>\$4,485,887</u>

The accompanying notes are an integral part of these financial statements.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF CHANGES IN FINANCIAL POSITION

FOR THE YEARS ENDED DECEMBER 31, 1976 AND 1975

	<u>1976</u>	<u>1975</u>
FUNDS WERE USED FOR:		
Cost of service in excess of revenue	\$171,006,800	\$151,865,090
Less - Charge to cost of service in excess of revenue which did not require funds -		
Depreciation of transportation property (Note 1)	(15,454,906)	(11,076,024)
Amortization of deferred charges (Notes 1 and 9)	(774,164)	(625,778)
Interest accrued on loan from Federal Department of Transportation (Note 11)	<u>(1,337,128)</u>	<u>(1,340,625)</u>
	\$153,440,602	\$138,822,663
Additions to transportation property, net	\$106,738,555	\$62,397,859
Increase in deferred charges	1,573,775	2,567,674
Decrease in bonds payable (Notes 5 and 6)	11,729,259	11,730,259
Decrease in loan to the Federal Department of Transportation	12,287	-
Decrease in deferred credits	<u>47,801</u>	<u>8,898</u>
Total funds used	<u>\$273,542,279</u>	<u>\$215,527,353</u>
FUNDS WERE PROVIDED BY:		
Net cost of service reimbursable by the Commonwealth of Massachusetts for the deficit to be assessed to the cities and towns constituting the Authority (Notes 1 and 7)	\$125,870,494	\$64,703,222
Contract assistance received from the Commonwealth of Massachusetts (Note 7)	20,987,664	73,474,007
Federal Operating Assistance (Note 12)	16,868,565	11,172,532
Reimbursements by the Commonwealth of Massachusetts of state diesel and gasoline fuel taxes	405,131	402,426
Reimbursement by cities and towns outside the Authority's area for service provided	1,051,897	1,003,701
Proceeds from loan from the Federal Department of Transportation	24,172,750	-
Grants from Federal and other sources (Notes 1 and 8)	55,514,811	39,745,552
Decrease in special funds	<u>29,153,522</u>	<u>24,736,124</u>
Total funds provided	<u>\$274,024,834</u>	<u>\$215,237,564</u>
RESULTING IN A WORKING CAPITAL INCREASE (DECREASE) OF:	<u>\$ 482,555</u>	<u>\$ (289,789)</u>
CHANGES IN ELEMENTS OF WORKING CAPITAL CONSIST OF:		
Increase (decrease) in current assets -		
Cash	\$1,214,360	\$ (752,370)
Certificates of Deposit and Securities under Agreement to Repurchase	17,214,769	(98,702,875)
Accounts receivable	3,110,518	4,628,694
Materials and supplies	616,217	1,396,144
Prepaid expenses	<u>(243,477)</u>	<u>(32,293)</u>
	\$21,912,387	\$ (93,462,700)
Increase (decrease) in current liabilities -		
Current maturities of bonds payable	\$ (1,000)	\$ (109,000)
Notes payable	20,000,000	(95,000,000)
Accounts payable	559,796	1,424,615
Accrued liabilities	<u>871,036</u>	<u>511,474</u>
	\$21,429,832	\$ (93,172,911)
Increase (decrease) in working capital	<u>\$ 482,555</u>	<u>\$ (289,789)</u>

The accompanying notes are an integral part of these financial statements.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF BONDS PAYABLE

DECEMBER 31, 1976 AND 1975

Massachusetts Bay Transportation Authority General Transportation System Bonds issued under General Laws, Chapter 161A, Section 23 of the Commonwealth of Massachusetts, 1967 Series A, dated March 1, 1967, 1970 Series A, dated September 1, 1970, 1972 Series A, dated September 1, 1972, and 1974 Series A, dated June 1, 1974 are all payable in annual installments on March 1; interest is payable semiannually on March 1 and September 1.

1967 Series A Bonds - The proceeds of the sale of the 1967 Series A Bonds were required to be used for payment of \$40,000,000 of Bond Anticipation Notes outstanding and the balance of \$70,000,000 was required to be deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the purposes outlined below. The debt outstanding at December 31, 1976 and 1975 is as follows:

<u>Purpose</u>	<u>First Principal Payment</u>	<u>Year of Maturity</u>	<u>Approximate Annual Payment</u>	<u>Average Interest Rate</u>	<u>1976</u>	<u>1975</u>
Express service transportation facilities	1969	2007	\$1,900,000	3.78%	\$58,900,000	\$60,800,000
Agreement with railroads	1968	1982	325,000	3.75	2,075,000	2,400,000
Buses and other purposes	1968	1979	325,000	3.75	975,000	1,300,000
Local service transportation facilities	1969	2007	50,000	3.78	1,550,000	1,600,000
Capital cost of certain transportation facilities including yards, shops and rolling stock	1969	2007	650,000	3.78	<u>20,150,000</u>	<u>20,800,000</u>
					<u>\$83,650,000</u>	<u>\$86,900,000</u>

1970 Series A Bonds - The proceeds of the sale of the 1970 Series A Bonds were required to be used for payment of \$5,365,000 of Bond Anticipation Notes outstanding and the balance of \$61,500,000 was required to be deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the purposes outlined below. The debt outstanding at December 31, 1976 and 1975 is as follows:

<u>Purpose</u>	<u>First Principal Payment</u>	<u>Year of Maturity</u>	<u>Approximate Annual Payment</u>	<u>Average Interest Rate</u>	<u>1976</u>	<u>1975</u>
Express service transportation facilities	1971	2010	\$1,540,000	6.32%	\$52,260,000	\$53,800,000
Buses and other purposes	1971	1982	295,000	6.00	1,730,000	2,025,000
Purchase and improvement of the Cambridge Subway	1971	1980	185,000	6.00	<u>740,000</u>	<u>925,000</u>
					<u>\$54,730,000</u>	<u>\$56,750,000</u>

THE HISTORY OF THE

REIGN OF

CHARLES THE FIRST

IN WHICH ARE CONTAINED THE MOST IMPORTANT AND INTERESTING
PARTS OF HIS REIGN, FROM HIS MARRIAGE TO HIS DEATH

BY JOHN HUME, ESQ. OF THE BARR

IN TWO VOLUMES

LONDON: PRINTED BY J. KNEELAND, AT THE SIGN OF THE SUN, IN ST. JAMES'S STREET, 1764

THE SECOND VOLUME

IN WHICH ARE CONTAINED THE MOST IMPORTANT AND INTERESTING
PARTS OF HIS REIGN, FROM HIS DEATH TO THE RESTORATION

BY JOHN HUME, ESQ. OF THE BARR

LONDON: PRINTED BY J. KNEELAND, AT THE SIGN OF THE SUN, IN ST. JAMES'S STREET, 1764

THE SECOND VOLUME

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF BONDS PAYABLE

DECEMBER 31, 1976 AND 1975
(Continued)

1972 Series A Bonds - The proceeds of the sale of the 1972 Series A Bonds were used for payment of \$8,000,000 of Bond Anticipation Notes and the balance of \$32,000,000 was deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the purposes outlined below. The debt outstanding at December 31, 1976 and 1975 is as follows:

<u>Purpose</u>	<u>First Principal Payment</u>	<u>Year of Maturity</u>	<u>Approximate Annual Payment</u>	<u>Average Interest Rate</u>	<u>1976</u>	<u>1975</u>
Express service transportation facilities and other capital costs of the transportation system	1973	2012	\$865,000	5.25%	\$31,040,000	\$31,905,000
Bus acquisition	1973	1984	290,000	5.40	2,340,000	2,630,000
Bus garages	1973	1984	170,000	5.40	<u>1,320,000</u>	<u>1,490,000</u>
					<u>\$34,700,000</u>	<u>\$36,025,000</u>

1974 Series A Bonds - The proceeds of the sale of 1974 Series A Bonds were deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the purposes outlined below. The debt outstanding at December 31, 1976 and 1975 is as follows:

<u>Purpose</u>	<u>First Principal Payment</u>	<u>Year of Maturity</u>	<u>Approximate Annual Payment</u>	<u>Average Interest Rate</u>	<u>1976</u>	<u>1975</u>
Express service transportation facilities and other capital costs of the transportation system	1975	2014	\$1,800,000	6.53%	\$67,800,000	\$69,600,000
Bus and trackless trolley acquisition	1975	1986	300,000	7.00	<u>3,000,000</u>	<u>3,300,000</u>
					<u>\$70,800,000</u>	<u>\$72,900,000</u>

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF BONDS PAYABLE

DECEMBER 31, 1976 AND 1975
(Continued)

	<u>1976</u>	<u>1975</u>
Metropolitan Transit Authority Bond, payable in semiannual installments of \$500,000 to December, 2020 -- Interest payable is the interest payable by the Boston Metropolitan District on their contra debt and refunding issues, which for the years ended December 31, 1976 was 4.43% and for December 31, 1975 was 4.18%.	<u>\$43,918,372</u>	<u>\$44,918,372</u>
Rapid Transit Bond, payable in annual installments of \$536,259 to November, 2024 -- Interest is the actual interest on the City of Boston Transit Debt and refunding issues less income collected on the City's transit debt sinking fund, which for the years ended December 31, 1976 was 4.35% and for December 31, 1975 was 3.91%.	<u>\$25,740,445</u>	<u>\$26,276,704</u>

Equipment Serial Bonds:

<u>Year of</u> <u>Maturity</u>	<u>Approximate</u> <u>Annual Payment</u>	<u>Interest</u> <u>Rate</u>		
1977	\$219,000	3.00%	219,000	438,000
1978	176,000	3.00	350,000	526,000
1981	127,000	1.50	635,000	762,000
1987	128,000	2.90	1,402,000	1,530,000
1988	131,000	2.90	1,572,000	1,703,000
1993	169,000	3.00	2,873,000	3,042,000
1993	100,000	3.20	<u>1,700,000</u>	<u>1,800,000</u>
	<u>\$1,050,000</u>		<u>\$8,751,000</u>	<u>\$9,801,000</u>

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF BONDS PAYABLE

DECEMBER 31, 1976 AND 1975

(Continued)

	<u>1976</u>	<u>1975</u>
Construction Bonds:		
2.00%, payable \$102,000 per annum to November 21, 1979, and \$4,590,000 on November 25, 1979	\$4,896,000	\$4,998,000
1.50%, payable \$84,333 per annum to March 1, 1981, and \$3,781,667 on March 1, 1981	4,203,333	4,287,667
2.10%, payable \$22,000 per annum to January 15, 1982, and \$990,000 on January 15, 1982	1,122,000	1,144,000
2.75%, payable \$47,000 per annum to March 1, 1983, and \$2,115,000 on March 1, 1983	2,444,000	2,491,000
2.30%, payable \$10,000 per annum to March 1, 1984, and \$450,000 on March 1, 1984	530,000	540,000
3.00%, payable \$55,000 per annum to July 1, 1988, and \$2,475,000 on July 1, 1988	3,135,000	3,190,000
3.60%, payable \$69,667 per annum to February 1, 1989, and \$3,135,000 on February 1, 1989	4,040,667	4,110,333
3.50%, payable \$19,000 per annum to September 15, 1990, and \$855,000 on September 15, 1990	1,121,000	1,140,000
3.20%, payable \$40,000 per annum to April 15, 1993, and \$1,800,000 on April 15, 1993	<u>2,480,000</u>	<u>2,520,000</u>
	<u>\$23,972,000</u>	<u>\$24,421,000</u>
	\$346,261,817	\$357,992,076
Less - Current maturities of bonds payable	<u>11,729,259</u>	<u>11,730,259</u>
Bonds payable	<u>\$334,532,558</u>	<u>\$346,261,817</u>

The accompanying notes are an integral part of these financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(1) Summary of Significant Accounting Policies

(a) Transportation Property

Transportation property is stated at historical cost. Such costs may include MBTA labor costs for employees working on capital projects plus related fringe benefits and an allocated share of general and administrative costs. The cost of funds required to finance the expansion of the transportation system is expensed currently.

(b) Depreciation

Depreciation is provided in the accounts based on the straight-line method at rates which are designed to amortize the original cost of the property over its estimated useful life. The major categories of transportation property and the depreciation rates used on the depreciable portion of the property for the years ended December 31, 1976 and 1975 are:

	Rates			Cost	
	Low	High	Average	1976	1975
Ways and structures	1.23%	10.00%	2.03%	\$414,689,941	\$351,086,762
Equipment	2.00%	18.00%	4.85%	128,075,405	117,774,288
Land	-	-	-	38,584,730	38,584,730
				<u>\$581,350,076</u>	<u>\$507,445,780</u>

(c) Deferred Charges

Certain costs incurred by the Authority, primarily related to the expansion and modernization of the transportation system, as further described in Note 9, have been capitalized. These costs are then amortized by charges to cost of service over the future periods in which the benefit to the Authority is estimated to be realized.

(d) Injuries and Damages

In 1975, the Authority was a self-insurer on claims for injuries and damages to the extent of \$100,000 per accident. In 1976, this self-insurance limit was increased to \$1,000,000 per accident. Insurance coverage is carried on claims in excess of that amount up to a maximum limit of \$15,100,000 per accident. The Authority accounts for injuries and damages by charges to operating expenses as payments are made except for the establishment of a fund of \$250,000 in 1976 because of the change in the self-insurance limit from \$100,000 to \$1,000,000.

(e) Workmen's Compensation Insurance

Effective May 1, 1965, the Authority became a self-insurer on workmen's compensation claims under the workmen's compensation laws of the Commonwealth of Massachusetts to the extent of \$50,000 per occurrence. Insurance coverage is carried on each occurrence in excess of that amount up to a maximum limit of \$4,050,000 per occurrence. The Authority accounts for these claims by charges to operating expenses as payments are made.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(1) Summary of Significant Accounting Policies (Continued)

(f) Unreimbursed Cost of Service

The legislative act under which the Massachusetts Bay Transportation Authority was established provides, among other things, that the Commonwealth of Massachusetts shall reimburse the Authority for the "net cost of service" as defined. Certain of these amounts reimbursed are then assessed to the 79 cities and towns constituting the Authority. The "net cost of service", as defined, includes a charge equal to the payments made on long-term debt during the period, and does not include a charge for depreciation and certain amortization. For financial reporting purposes however, the Authority follows the generally accepted method of depreciating and amortizing the cost of assets over their estimated useful lives.

The cumulative excess of depreciation and amortization charges over payments made on long-term debt is charged to the unreimbursed cost of service account and is recovered in years when payments made on long-term debt exceed depreciation and amortization. During the year ended December 31, 1976, depreciation and amortization charges exceeded payments on long-term debt by \$4,498,811. In 1975, payments exceeded depreciation and amortization charges by \$137,457. The excess of depreciation and amortization charges over payments in 1976 is due primarily to the start of depreciation charges on construction projects completed and put into service during the year.

In addition, the "net cost of service" as defined does not include charges for interest accrued on the Loans Payable to the Federal Department of Transportation (\$1,324,238 in 1976 and \$1,246,659 in 1975) (Note 11). However, for financial reporting purposes, these amounts have been charged to cost of service, in accordance with generally accepted accounting principles. Interest accrued will be included in "net cost of service" assessable to the cities and towns in the year it is paid.

(g) Grants

The Authority receives capital expansion grants from certain governmental agencies (see Note 8) to be used for various purposes connected with the planning, modernization and expansion of transportation facilities. These grants are deferred until such time as the related facilities are put into service. The credits are then amortized over the estimated useful life of the assets as a reduction of Unreimbursed Cost of Service. As of December 31, 1976, the Authority had requisitioned but not received capital grant funds totaling \$10,833,516 which will be reflected on the books when received.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(2) Railroad Commuter Subsidies

Under Chapter 161A Section 3(f) of the General Laws, the Authority may enter into agreements with private transportation companies, railroads and other concerns, providing for joint or cooperative operation of any mass transportation facility and for operation and use of any mass transportation facility and equipment for the account of the Authority. In accordance with these laws, the Authority entered into agreements with the Boston and Maine and Penn Central Railroads and ConRail during 1976 and 1975 for the rendering of transportation service.

The Railroad Revitalization and Regulatory Reform Act of 1976, enacted February 5, 1976, adds a new Section 17 to the Urban Mass Transportation Act of 1964. Section 17 authorizes the Urban Mass Transportation Administration (UMTA) to furnish emergency operating assistance for the continuation of certain passenger rail service operated by ConRail as of April 1, 1976. The amount of Section 17 subsidy available to the Authority is a percentage of the increased costs of continuing passenger service up to a maximum determined by standards set by the Rail Services Planning Office of the Interstate Commerce Commission.

The following percentages apply during the periods indicated:

	Federal Share of Additional Cost
Optional Period I: Sept. 28, 1976 - March 26, 1977	100%
Optional Period II: March 27, 1977 - March 31, 1978	90%
Optional Period III: April 1, 1978 - Sept. 27, 1978	50%

ConRail has provided the required service through March 13, 1977, but no agreement has as yet been reached as to the amount of additional costs which are due to ConRail or the amount which may be received from UMTA under a Section 17 grant. Accordingly, an operating assistance grant and an off-setting accrued expense for the estimated amount of additional costs related to continued passenger service have not been reflected in these financial statements.

In connection with the purchase of certain assets of the Boston and Maine Corporation (B & M) (see Note 11) the Authority entered into a five year operating agreement with the B & M. The Authority has agreed to pay the B & M all direct costs of operating the service, plus an equitable share of indirect costs, joint costs, applicable overhead and an annual incentive payment of ten cents per revenue passenger carried.

In the event that the Advisory Board fails to approve the annual budgetary provision for the service, this agreement shall terminate subject to certain labor protection obligations and liquidated damages in lieu of incentive payments for passengers carried.

The operating subsidy paid or payable by the Authority for commuter rail service amounted to \$17,654,431 in 1976 and \$14,562,764 in 1975.

THE HISTORY OF THE
CITY OF BOSTON
FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME

By SAMUEL JOHNSON, LL.D.
OF THE UNIVERSITY OF OXFORD.
IN TWO VOLUMES.
LONDON: Printed by J. JOHNSON, in Pall-mall.
MDCCLXXV.

THE HISTORY OF THE
CITY OF BOSTON
FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME
By SAMUEL JOHNSON, LL.D.
OF THE UNIVERSITY OF OXFORD.
IN TWO VOLUMES.
LONDON: Printed by J. JOHNSON, in Pall-mall.
MDCCLXXV.

THE HISTORY OF THE
CITY OF BOSTON
FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME
By SAMUEL JOHNSON, LL.D.
OF THE UNIVERSITY OF OXFORD.
IN TWO VOLUMES.
LONDON: Printed by J. JOHNSON, in Pall-mall.
MDCCLXXV.

THE HISTORY OF THE
CITY OF BOSTON
FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME
By SAMUEL JOHNSON, LL.D.
OF THE UNIVERSITY OF OXFORD.
IN TWO VOLUMES.
LONDON: Printed by J. JOHNSON, in Pall-mall.
MDCCLXXV.

THE HISTORY OF THE
CITY OF BOSTON
FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME
By SAMUEL JOHNSON, LL.D.
OF THE UNIVERSITY OF OXFORD.
IN TWO VOLUMES.
LONDON: Printed by J. JOHNSON, in Pall-mall.
MDCCLXXV.

THE HISTORY OF THE
CITY OF BOSTON
FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME
By SAMUEL JOHNSON, LL.D.
OF THE UNIVERSITY OF OXFORD.
IN TWO VOLUMES.
LONDON: Printed by J. JOHNSON, in Pall-mall.
MDCCLXXV.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975
(Continued)

(3) Relocation of Facilities

In April, 1967, the Authority entered into an agreement with the John Fitzgerald Kennedy Library Incorporated, whereby the Authority would relocate certain transportation facilities in order to convey certain properties to the United States and the Library Corporation.

The Commonwealth of Massachusetts appropriated \$6,098,400 to the Authority for the part of the properties conveyed to the United States. In addition, the Authority received \$1,330,112 from the Library Corporation for the remaining part of the properties, totaling \$7,428,512.

These facilities, having a net book value of \$709,807, have been retired. The amount received in excess of net book value (\$6,718,705), less \$12,000 of expense incurred in connection with the acquisition of replacement property, is included in Deferred Credits on the balance sheet.

In 1975, the replacement facilities were completed and placed in service. Amortization of the deferred credit began in 1975 and amounted to \$167,668 in both 1976 and 1975. The deferred credit is being amortized over a 40 year period (estimated useful life of the facility) and is accounted for as a reduction of the unreimbursed cost of service.

(4) Pension

The Authority has agreed to provide retirement benefits to employees through a contributory pension plan which, as currently amended, requires the payment by the Authority of an amount equal to 11-5/8% of the total payroll of the employees who are members of the plan. The cost of the plan to the Authority for the years ended December 31, 1976 and 1975 was approximately \$14,029,000 and \$13,341,000 respectively. The cost in both years is funded currently and includes interest on unfunded prior service costs, but does not include amortization of the unfunded prior service costs. The Authority is not legally obligated, under the agreement, to fund the actuarial cost of future benefits to present and retired employees. The most recent actuarial valuation was made as of December 31, 1975, and at that time, unfunded prior service costs approximated \$126,800,000.

The actuarially computed value of vested benefits, based upon the most recent actuarial report (dated December 31, 1975) was \$197,615,788. As of December 31, 1975, the market value of the fund assets was \$125,678,817 and the computed value of vested benefits exceeded the market value of fund assets by \$71,936,971. The market value of fund assets as of December 31, 1976 was \$157,582,121. The change in the market value of the fund is primarily due to appreciation in the value of securities held during the year.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(4) Pension (Continued)

The Authority has also entered into agreements with certain salaried employees to provide supplemental pension benefits after retirement. In order to receive the benefits, the employee must have at least ten years of service and be eligible for retirement under provisions of the contributory pension plan. The annual supplemental benefit paid is equal to 1% of the employee's average annual compensation received during the last five years of service multiplied by the number of years of service, but limited to an amount which, when added to the benefit available under the contributory pension plan, is not greater than 65% of the employee's five year average annual compensation. This 65% limit was temporarily changed to 70% for certain employees retiring between January 1, 1976 and September 1, 1977. At December 31, 1976 approximately 360 employees were either receiving supplemental benefits or will be eligible to receive them upon retirement. Prior to 1976, the Authority charged cost of service with the supplemental pension expense when it was paid. In 1976, the Authority changed to a policy of charging cost of service for the actuarially determined normal cost, interest on the unfunded prior service costs, and amortization of the unfunded prior service cost over forty years. This change increased the charge for supplemental pension benefits included in 1976 cost of service by approximately \$170,000 to \$541,980 compared with a charge of \$285,395 in 1975.

(5) Long-Term Debt

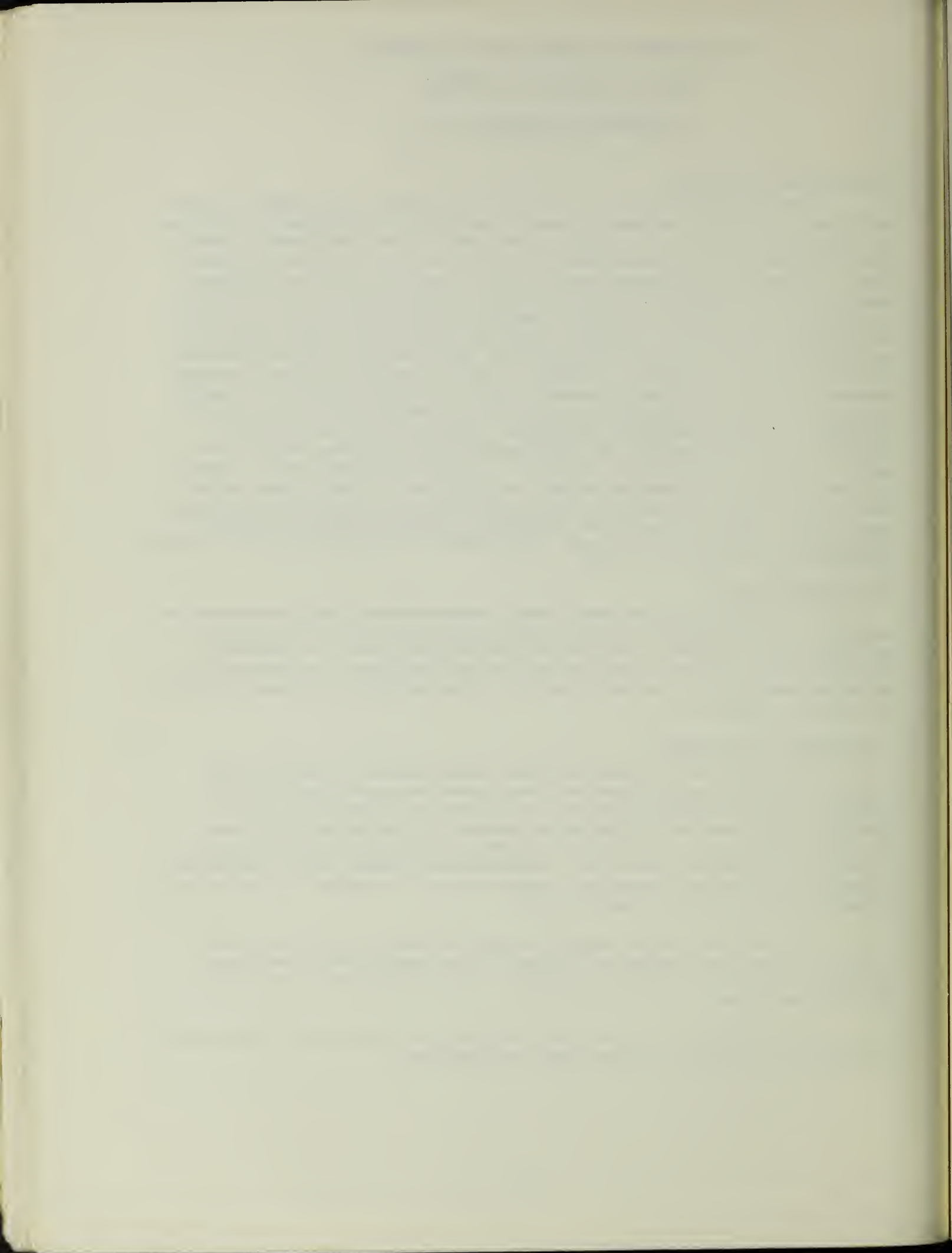
The legislative act under which the Massachusetts Bay Transportation Authority was established provides among other things, that if at any time any principal or interest is due on any bond or note issued or assumed by the Authority and funds to pay the same are not available, the Commonwealth of Massachusetts shall thereupon pay over to the Authority the amount required to meet such obligations.

(6) Construction Program

The Authority's program for mass transportation within the area constituting the Authority involves future total estimated costs of \$2.2 billion. Financing requirements for the program are expected to be met through various sources, including the issuance by the Authority of long-term debt securities. The remaining financing requirements are expected to be met through Federal transit aid, Federal urban renewal funds, interstate transfer funds and relocation cost reimbursements. Currently, the Authority's authorized debt ceiling is \$464,000,000.

Expenditures on the program through December 31, 1976, have been financed through the issuance of \$290,000,000 of Massachusetts Bay Transportation Authority General Transportation System Bonds, and other sources as mentioned above.

As of December 31, 1976, the Authority has entered into construction commitments amounting to approximately \$171,000,000.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(7) Contract Assistance

The legislative act authorizing the issuance of debt securities currently provides for participation by the Commonwealth of Massachusetts in the payment of annual debt service costs on bonds issued by the Authority as follows: on the \$175,000,000 of bonds issued prior to January 1, 1971, the debt service on \$144,800,000 is eligible for contract assistance at either 90% or 50%, as provided by contract; the annual debt service on \$115,000,000 of bonds issued after January 1, 1971, is eligible for contract assistance at 90%. However, regardless of when issued, contract assistance on debt service will not be extended to over \$332,000,000 at any one time.

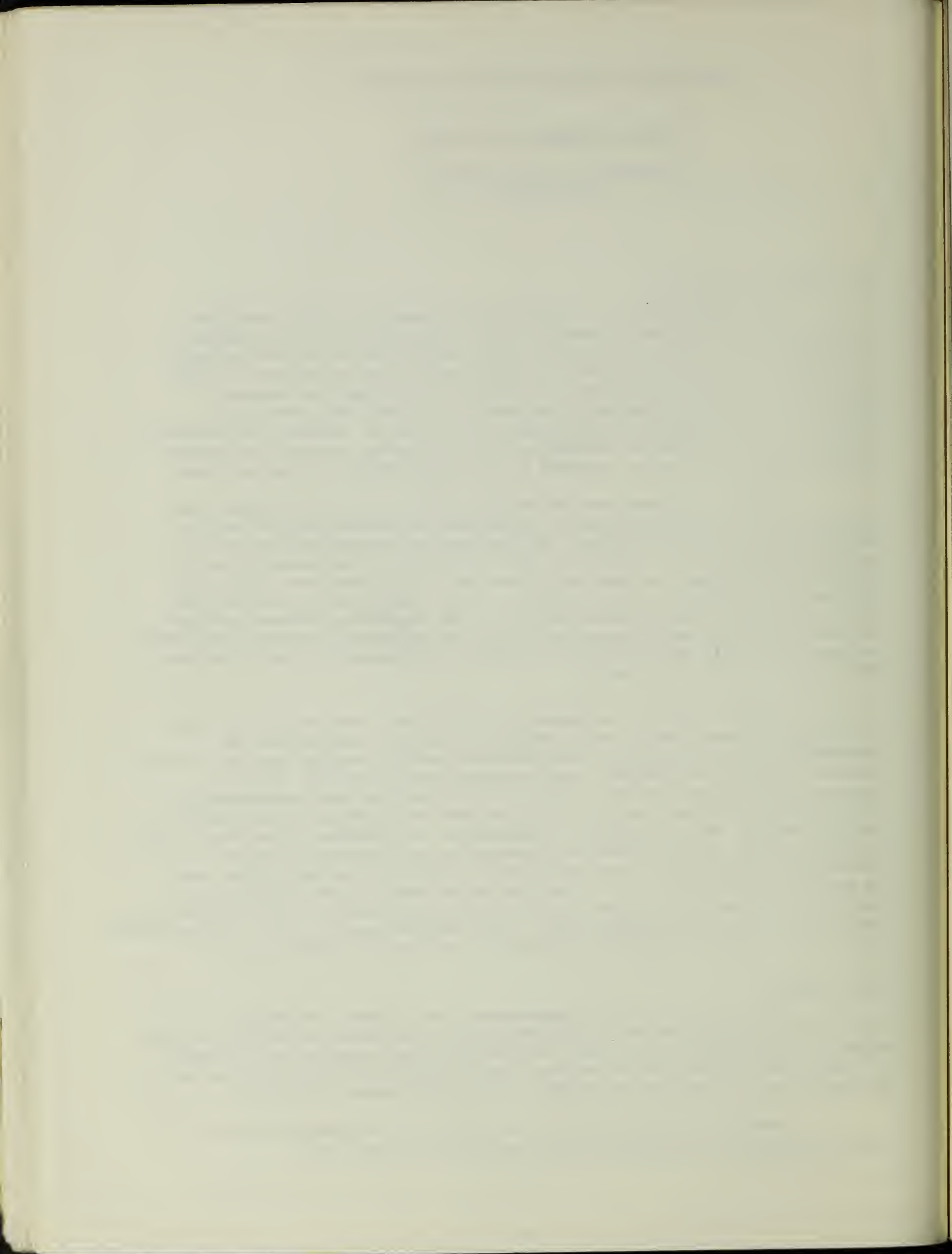
In 1975, the Commonwealth enacted legislation which provided the Authority with an additional amount of contract assistance for the cost of service amounting to \$52,370,000. This additional contract assistance is not assessable to the 79 cities and towns constituting the Authority and is applied for assessment purposes as a reduction of all cost items comprising the net cost of service of the Authority. This legislation is pending for 1976 and therefore the Authority has not as yet received additional contract assistance for the cost of service in 1976. If additional contract assistance is received it will reduce the \$125,870,494 to be assessed to the cities and towns constituting the Authority.

In 1973, contract assistance of \$15,051,861 was received by the Authority for funded debt, and in addition \$4,513,946 was paid by the Commonwealth for the Authority as a railroad commuter subsidy (Note 2). These amounts, totaling \$19,565,807 under Chapter 1140 of the Acts of 1973, represent the minimum contract assistance to be paid by the Commonwealth in any subsequent calendar year. In 1976 and 1975, the Authority became eligible for \$20,468,582 and \$20,828,444 respectively. In addition, from July 1, 1975 through June 30, 1976, the Authority received contract assistance under Chapter 859 of the Acts of 1975 amounting to 50% of the net additional cost of providing rail service to certain cities and towns outside the district. Chapter 283 of the Acts of 1976 increased this assistance to 75% of the net additional cost for the period July 1, 1976 through June 30, 1977. The assistance under these Chapters amounted to \$519,082 in 1976 and \$275,563 in 1975.

(8) Grants

Under the Urban Mass Transportation Act of 1964, the Federal Department of Transportation has approved for the Authority grants for capital expansion aggregating \$614,379,517. The Authority has received \$220,230,654 of this amount. These funds have been used by the Authority to purchase new equipment and to modernize and expand mass transportation facilities.

Federal grant amortization credited to the unreimbursed cost of service amounted to \$6,305,902 in 1976 and \$3,763,070 in 1975.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(8) Grants (Continued)

Under an agreement between the Boston Redevelopment Authority and the Massachusetts Bay Transportation Authority, the BRA has approved grants aggregating \$12,000,000 in connection with the expansion of mass transportation facilities. The Authority has incurred costs totaling \$11,999,479 related to this agreement. Of this amount the Authority has not as yet been reimbursed by the BRA for \$514,196 which is included in accounts receivable.

During 1975, those facilities for which the BRA grant has partially paid, were opened for public use and capitalized for accounting purposes. In relation to this, BRA grant amortization amounting to \$299,987 in 1976 and \$145,621 in 1975 has been credited to the unreimbursed cost of service.

(9) Deferred Charges

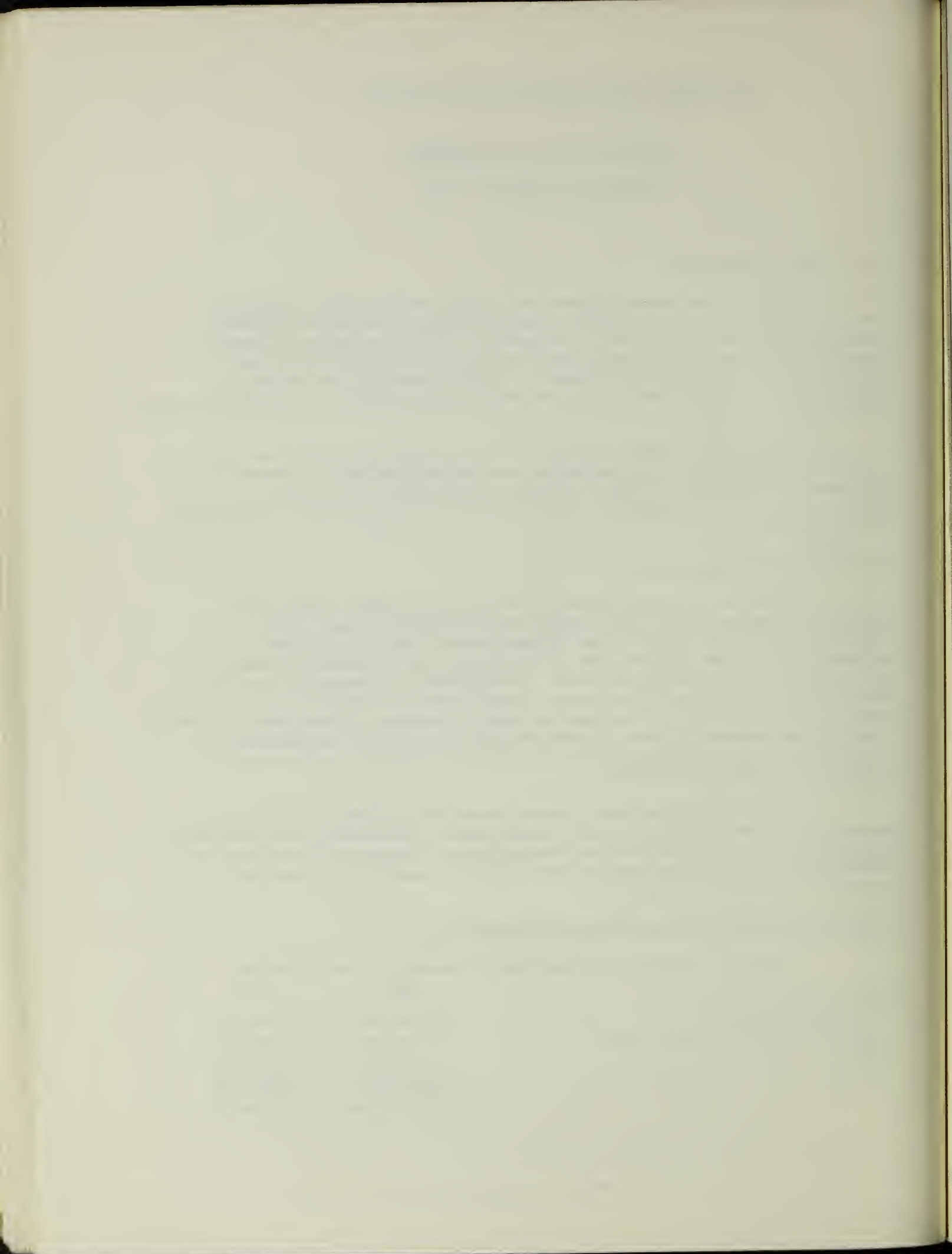
Under the original Railroad Contract Assistance Program the Authority incurred costs which totaled \$5,000,000, which are being amortized to cost of service over fifteen years. The amortization amounted to \$325,000 in both 1976 and 1975, and the unamortized balance at December 31, 1976 was \$2,075,000. In addition, in connection with the Authority's acquisition of the Eastern Mass. Street Railway Company in 1968, costs of \$611,362 were not assigned to tangible assets. These costs are being amortized by charges to cost of service over forty years. Amortization in both 1976 and 1975 amounted to \$15,284 and the unamortized balance at December 31, 1976 was \$489,090.

Certain other deferred charges principally relating to the expansion and modernization of the transportation system are being amortized by charges to cost of service over twenty years. Amortization amounted to \$446,945 in 1976 and \$273,186 in 1975, and the unamortized balance at December 31, 1976 was \$8,837,056.

(10) Supplementary Operating Expense Information

Operating expenses captioned below consist of the following:

	<u>1976</u>	<u>1975</u>
Transportation services -		
Salaries and wages	\$68,608,491	\$65,089,881
Taxes, including payroll taxes	4,001,804	3,873,941
Fuel	2,720,305	2,619,853
Other	4,080,511	4,303,425
	<u>\$79,411,111</u>	<u>\$75,887,100</u>



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(10) Supplementary Operation Expense Information (Continued)

	<u>1976</u>	<u>1975</u>
Maintenance -		
Salaries and wages	\$29,625,916	\$28,300,191
Materials and supplies	10,251,571	8,039,433
Taxes, including payroll taxes	1,742,721	1,687,040
	<u>\$41,620,208</u>	<u>\$38,026,664</u>
Electric power -		
Salaries and wages	\$3,718,413	\$3,429,133
Power purchased	2,615,777	2,079,955
Fuel	6,459,738	6,851,478
Taxes, including payroll taxes	193,636	187,449
Other	249,118	279,723
	<u>\$13,236,682</u>	<u>\$12,827,738.</u>

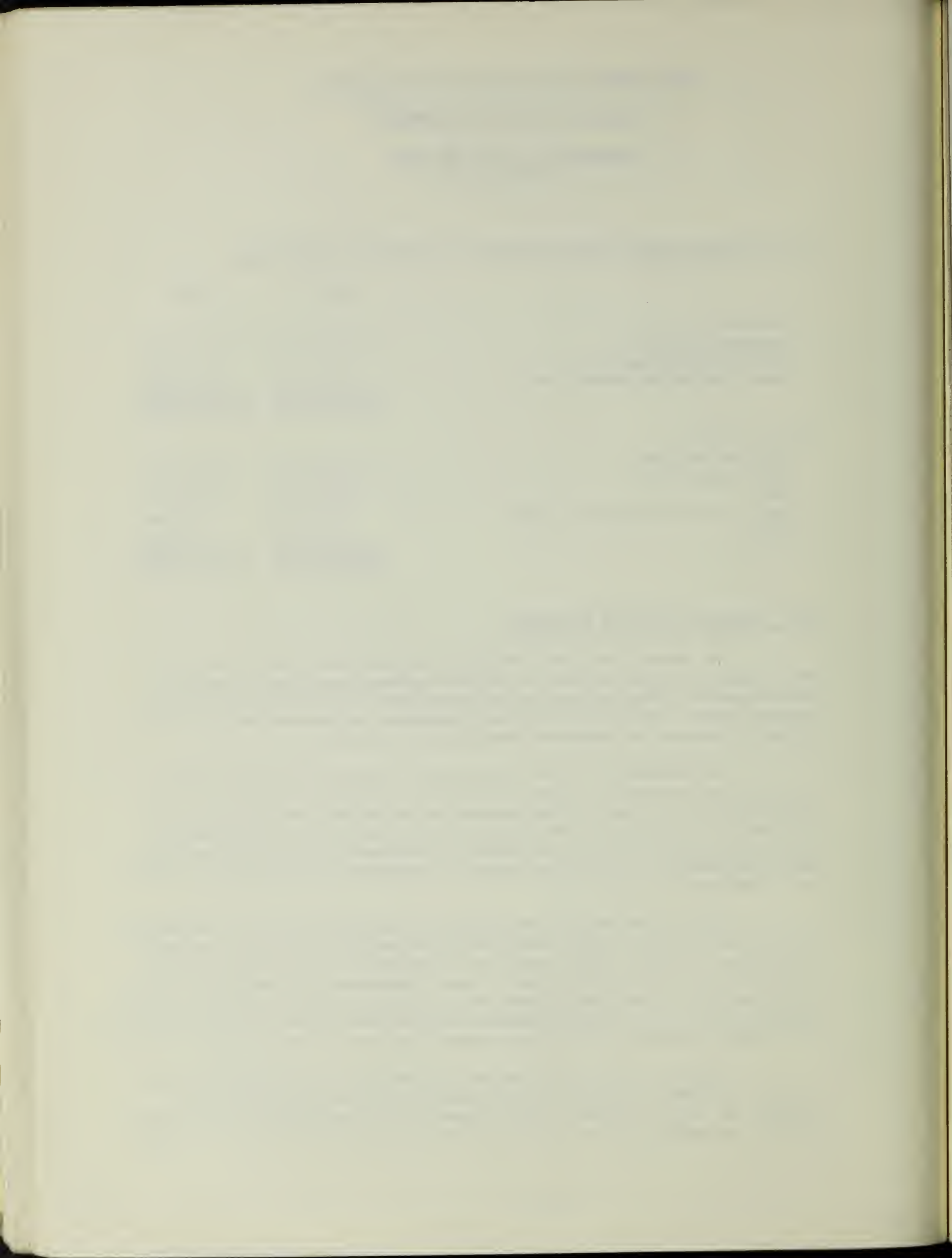
(11) Property Held for Expansion

On January 26, 1973, the Authority purchased 145 miles of the Penn Central Railroad's right of way and related properties in Eastern Massachusetts. This purchase was financed with a \$19.5 million (6.875% interest rate) loan from the Federal Department of Transportation. The property acquired is pledged as security for the loan.

On December 27, 1976, the Authority purchased certain assets of the Boston and Maine Corporation (B & M), including 270 miles of right-of-way, track and related properties and 84 Budd Rail Diesel cars. The cost of \$39.5 million was financed with a \$24,172,750 (8% interest rate) loan from the Federal Department of Transportation secured by the assets purchased, a \$12,261,800 Federal Department of Transportation grant, and \$3,065,450 of local funds.

Both of the Federal Department of Transportation loan agreements provide for the Authority to repay the principal plus accrued interest at the earlier of (a) ten years from date of purchase, (b) the date a grant agreement for actual construction of mass transportation facilities is made, or (c) the date a decision is made not to use the property for mass transportation. The Penn Central agreement also provides that 75% of the principal shall only be payable out of the proceeds from sale of the property, if sold.

Interest totaling \$5,280,801 (\$1,337,128 in 1976 and \$1,340,625 in 1975) has been accrued in the accompanying financial statements at December 31, 1976. However, this interest is not included in "net cost of service" assessable to the 79 cities and towns until the year it is paid.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975
(Continued)

(12) Federal Assistance (Department of Transportation)

Section 5 of the Urban Mass Transportation Act of 1964, as amended by the National Urban Mass Transportation Act of 1974, provides a six year mass transportation assistance program for urbanized areas apportioned on the basis of a statutory formula. Urbanized areas may use Section 5 funds by developing a specific capital assistance and/or operating assistance projects under the statutory requirements of the Act, as defined. The Authority has been designated the recipient for the Section 5 operating subsidy funds for the Boston Urbanized Area. The projected apportionment for the six year program for the Boston Urbanized Area, limited by the availability of these funds, is as follows:

<u>Period in which assistance becomes available</u>	<u>Projected Amount of Assistance Available</u>
November 26, 1974 - June 30, 1975	\$6.5 Million
July 1, 1975 - June 30, 1976	10.9 "
July 1, 1976 - June 30, 1977	16.9 "
July 1, 1977 - June 30, 1978	16.9 "
July 1, 1978 - June 30, 1979	18.5 "
July 1, 1979 - June 30, 1980	<u>16.9</u> "
Total	\$86.6 "

During 1976, the Authority received \$11,172,532 of operating assistance funds applied for in prior years, and applied for and received \$16,868,565, the entire amount of operating assistance funds available for the period beginning July 1, 1976.

THE HISTORY OF THE

REIGN OF

CHARLES THE FIRST

BY

JOHN BURNET

OF THE UNIVERSITY OF OXFORD

IN TWO VOLUMES

LONDON

ARTHUR ANDERSEN & Co.

BOSTON, MASSACHUSETTS

To the Board of Directors of

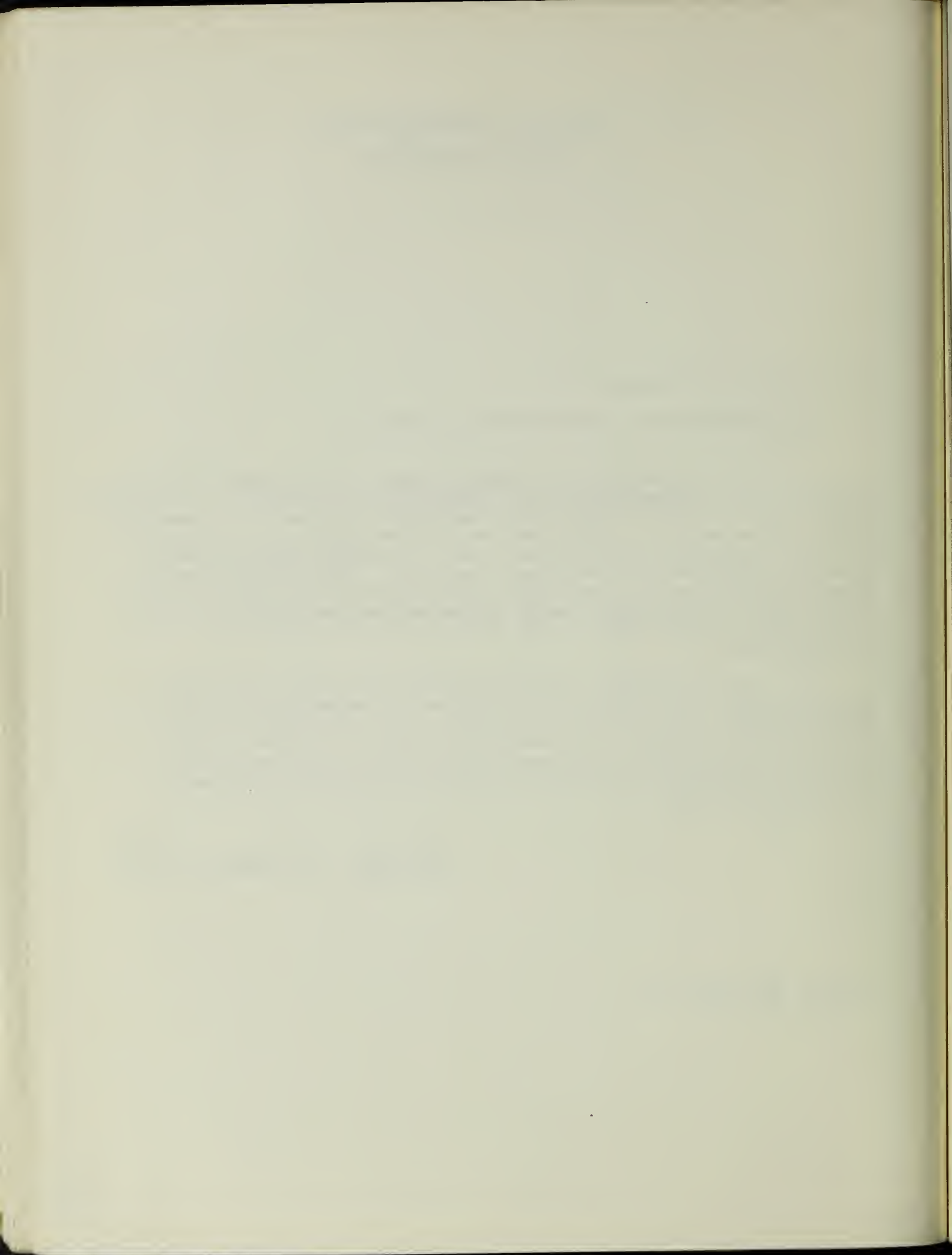
Massachusetts Bay Transportation Authority:

We have examined the balance sheet and statement of bonds payable of the MASSACHUSETTS BAY TRANSPORTATION AUTHORITY (a political subdivision of the Commonwealth of Massachusetts) as of December 31, 1976, and December 31, 1975, and the related statements of revenue and cost of service, unreimbursed cost of service, and changes in financial position for the years then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying financial statements present fairly the financial position of the Massachusetts Bay Transportation Authority as of December 31, 1976, and December 31, 1975, and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles consistently applied during the periods.

Arthur Andersen & Co.

Boston, Massachusetts,
March 18, 1977.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

BALANCE SHEET - DECEMBER 31, 1976 AND 1975

A S S E T S

	<u>1976</u>	<u>1975</u>
TRANSPORTATION PROPERTY, at cost (Notes 1 and 6):		
Transportation property in service	\$ 581,350,076	\$ 507,445,780
Less - Reserve for depreciation	<u>138,000,457</u>	<u>128,213,734</u>
	\$ 443,349,619	\$ 379,232,046
Construction in progress (Notes 1 and 6)	63,071,561	75,408,185
Property held for expansion (Note 11)	<u>58,987,700</u>	<u>19,485,000</u>
	<u>\$ 565,408,880</u>	<u>\$ 474,125,231</u>
 SPECIAL FUNDS, consisting of Cash and Certificates of Deposit:		
Construction funds, held by the bond fiscal agent	\$ 27,255,841	\$ 56,181,885
Funds received for relocation of facilities (Note 3)	269,762	269,762
Federal grants and other special funds (Notes 1 and 8)	<u>943,482</u>	<u>1,170,960</u>
	<u>\$ 28,469,085</u>	<u>\$ 57,622,607</u>
 CURRENT ASSETS:		
Cash	\$ 2,992,898	\$ 1,778,538
Certificates of Deposit and Securities under Agreements to Repurchase	34,271,696	17,056,927
Accounts receivable -		
Commonwealth of Massachusetts	30,042,372	12,232,073
Federal Department of Transportation (Note 12)	-	11,172,532
Boston Redevelopment Authority (Note 8)	597,071	1,858,187
Other	2,135,347	4,401,480
Materials and supplies, at average cost	7,570,245	6,954,028
Prepaid expenses	<u>213,614</u>	<u>457,091</u>
	<u>\$ 77,823,243</u>	<u>\$ 55,910,856</u>
 DEFERRED CHARGES, (Notes 1 and 9)	<u>\$ 11,711,995</u>	<u>\$ 10,912,384</u>
	<u>\$ 683,413,203</u>	<u>\$ 598,571,078</u>

The accompanying notes are an integral part
of these financial statements

THE HISTORY OF THE
CITY OF BOSTON

THE HISTORY OF THE
CITY OF BOSTON

THE HISTORY OF THE
CITY OF BOSTON

THE HISTORY OF THE
CITY OF BOSTON

THE HISTORY OF THE
CITY OF BOSTON

THE HISTORY OF THE
CITY OF BOSTON

THE HISTORY OF THE
CITY OF BOSTON

THE HISTORY OF THE
CITY OF BOSTON

THE HISTORY OF THE
CITY OF BOSTON

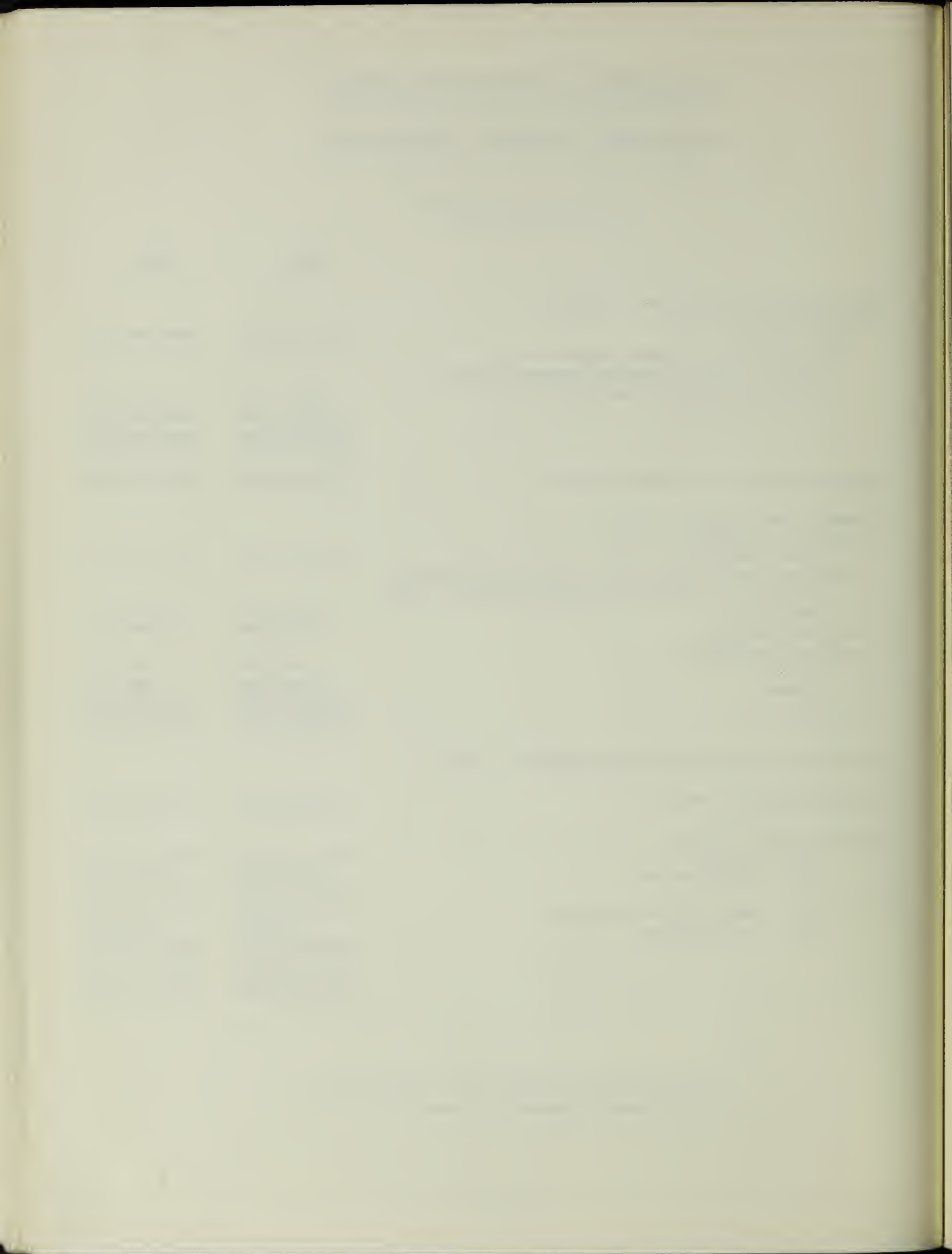
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

BALANCE SHEET - DECEMBER 31, 1976 AND 1975

L I A B I L I T I E S

	<u>1976</u>	<u>1975</u>
LONG-TERM DEBT, exclusive of current maturities (Note 5):		
Bonds payable	\$334,532,558	\$346,261,817
Loans payable to Federal Department of Transportation, including accrued interest of \$5,280,801 in 1976 and \$3,943,672 in 1975 (Note 11)	<u>48,941,263</u>	<u>23,443,672</u>
	<u>\$383,473,821</u>	<u>\$369,705,489</u>
UNREIMBURSED COST OF SERVICE (Note 1)	<u>\$ (3,535,379)</u>	<u>\$ (4,485,887)</u>
CURRENT LIABILITIES:		
Current maturities of bonds payable (Note 5)	\$11,729,259	\$11,730,259
Notes payable (\$50,000,000 @ 4.19% due December 30, 1977 and \$30,000,000 @ 9% due December 31, 1976) (Note 5)	50,000,000	30,000,000
Accounts payable	12,486,546	11,926,750
Accrued liabilities -		
Payroll	1,907,226	1,390,747
Interest	4,806,887	4,961,651
Other	<u>2,105,662</u>	<u>1,596,341</u>
	<u>\$83,035,580</u>	<u>\$61,605,748</u>
COMMITMENTS AND CONTINGENCIES (Notes 1, 4 and 6)		
DEFERRED, CREDITS (Note 3)	<u>\$6,579,707</u>	<u>\$6,795,176</u>
GRANTS (Notes 1 and 8):		
Federal grants	\$220,230,654	\$164,880,287
Less - Amortization	<u>17,925,051</u>	<u>11,606,084</u>
	\$202,305,603	\$153,274,203
Boston Redevelopment Authority	11,999,479	11,821,970
Less - Amortization	<u>445,608</u>	<u>145,621</u>
	<u>\$213,859,474</u>	<u>\$164,950,552</u>
	<u>\$683,413,203</u>	<u>\$598,571,078</u>

The accompanying notes are an integral part
of these financial statements.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF REVENUE AND COST OF SERVICE

FOR THE YEARS ENDED DECEMBER 31, 1976 AND 1975

	<u>1976</u>	<u>1975</u>
OPERATING REVENUE:		
Transportation	\$53,122,315	\$51,275,620
Other	<u>1,956,749</u>	<u>1,418,335</u>
	<u>\$55,079,064</u>	<u>\$52,693,955</u>
OPERATING EXPENSES (Note 10):		
Transportation service	\$79,411,111	\$75,887,100
Maintenance	41,620,209	38,026,664
Electric power	13,236,682	12,827,738
Depreciation and amortization (Notes 1 and 8)	15,904,069	11,376,802
General and administrative expenses -		
Salaries and wages	8,854,490	8,493,288
Employee pension and insurance benefits (Notes 1 and 4)	23,548,239	21,731,275
Injuries and damages and workmen's compensation claims (Note 1)	4,365,069	3,900,194
Other	<u>3,934,247</u>	<u>3,106,478</u>
	<u>\$190,874,116</u>	<u>\$175,349,539</u>
Operating loss	\$ (135,795,052)	\$ (122,655,584)
OTHER INCOME, including interest of \$3,859,605 in 1976 and \$11,410,152 in 1975	3,913,318	11,724,240
INTEREST EXPENSE, including \$17,118,072 on long-term debt in 1976 and \$18,697,904 in 1975	(21,145,635)	(26,045,982)
RAILROAD COMMUTER SUBSIDIES, including amortization of the original Railroad Contract Assistance Program of \$325,000 in both 1976 and 1975 (Notes 1, 2 and 9)	<u>(17,979,431)</u>	<u>(14,887,764)</u>
Cost of service in excess of revenue	<u>\$ (171,006,800)</u>	<u>\$ (151,865,090)</u>

The accompanying notes are an integral part of these financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF UNREIMBURSED COST OF SERVICE

FOR THE YEARS ENDED DECEMBER 31, 1976 AND 1975

	<u>1976</u>	<u>1975</u>
BALANCE AT BEGINNING OF YEAR	\$4,485,887	\$7,453,044
ADD - Cost of service in excess of revenue	171,006,800	151,865,090
DEDUCT:		
Cost of service reimbursed by the Commonwealth of Massachusetts to be assessed to the cities and towns constituting the Authority (Note 7)	125,870,494	64,703,222
Contract Assistance, portion of the cost of service paid by the Commonwealth of Massachusetts in accordance with a contract for financial assistance between the Authority and the Commonwealth (Note 7)		
Assistance pursuant to Chapter 283 of the Acts of 1976	-	52,370,000
Assistance pursuant to Chapter 563 of the Acts of 1964 and Chapter 1140 of the Acts of 1973, as amended	20,468,582	20,828,444
Other	519,082	275,563
Federal Operating Assistance pursuant to Section 5 of the Urban Mass Transportation Act of 1964, as amended (Note 12)	16,868,565	11,172,532
Cost of service reimbursed by the cities and towns outside the Authority's area	1,051,897	1,003,701
State diesel and gasoline fuel taxes reimbursable to the Authority in accordance with Section 2 of Chapter 563 of the Acts of 1964	405,131	402,426
Amortization of Federal grants (Notes 1 and 8)	6,305,902	3,763,070
Amortization of BRA grants (Notes 1 and 8)	299,987	145,621
Amortization of deferred credits (Note 3)	<u>167,668</u>	<u>167,668</u>
BALANCE AT END OF YEAR	<u>\$3,535,379</u>	<u>\$4,485,887</u>

The accompanying notes are an integral part of these financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF CHANGES IN FINANCIAL POSITION

FOR THE YEARS ENDED DECEMBER 31, 1976 AND 1975

	<u>1976</u>	<u>1975</u>
FUNDS WERE USED FOR:		
Cost of service in excess of revenue	\$171,006,800	\$151,865,090
Less - Charge to cost of service in excess of revenue which did not require funds -		
Depreciation of transportation property (Note 1)	(15,454,906)	(11,076,024)
Amortization of deferred charges (Notes 1 and 9)	(774,164)	(625,778)
Interest accrued on loan from Federal Department of Transportation (Note 11)	(1,337,128)	(1,340,625)
	<u>\$153,440,602</u>	<u>\$138,822,663</u>
Additions to transportation property, net	\$106,738,555	\$62,397,859
Increase in deferred charges	1,573,775	2,567,674
Decrease in bonds payable (Notes 5 and 6)	11,729,259	11,730,259
Decrease in loan to the Federal Department of Transportation	12,287	-
Decrease in deferred credits	<u>47,801</u>	<u>8,898</u>
Total funds used	<u>\$273,542,279</u>	<u>\$215,527,353</u>
FUNDS WERE PROVIDED BY:		
Net cost of service reimbursable by the Commonwealth of Massachusetts for the deficit to be assessed to the cities and towns constituting the Authority (Notes 1 and 7)	\$125,870,494	\$64,703,222
Contract assistance received from the Commonwealth of Massachusetts (Note 7)	20,987,664	73,474,007
Federal Operating Assistance (Note 12)	16,868,565	11,172,532
Reimbursements by the Commonwealth of Massachusetts of state diesel and gasoline fuel taxes	405,131	402,426
Reimbursement by cities and towns outside the Authority's area for service provided	1,051,897	1,003,701
Proceeds from loan from the Federal Department of Transportation	24,172,750	-
Grants from Federal and other sources (Notes 1 and 8)	55,514,811	39,745,552
Decrease in special funds	<u>29,153,522</u>	<u>24,736,124</u>
Total funds provided	<u>\$274,024,834</u>	<u>\$215,237,564</u>
RESULTING IN A WORKING CAPITAL INCREASE (DECREASE) OF:	<u>\$ 482,555</u>	<u>\$ (289,789)</u>
CHANGES IN ELEMENTS OF WORKING CAPITAL CONSIST OF:		
Increase (decrease) in current assets -		
Cash	\$1,214,360	\$ (752,370)
Certificates of Deposit and Securities under Agreement to Repurchase	17,214,769	(98,702,875)
Accounts receivable	3,110,518	4,628,694
Materials and supplies	616,217	1,396,144
Prepaid expenses	<u>(243,477)</u>	<u>(32,293)</u>
	\$21,912,387	\$(93,462,700)
Increase (decrease) in current liabilities -		
Current maturities of bonds payable	\$ (1,000)	\$ (109,000)
Notes payable	20,000,000	(95,000,000)
Accounts payable	559,796	1,424,615
Accrued liabilities	<u>871,036</u>	<u>511,474</u>
	<u>\$21,429,832</u>	<u>\$(93,172,911)</u>
Increase (decrease) in working capital	<u>\$ 482,555</u>	<u>\$ (289,789)</u>

The accompanying notes are an integral part of these financial statements.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF BONDS PAYABLE

DECEMBER 31, 1976 AND 1975

Massachusetts Bay Transportation Authority General Transportation System Bonds issued under General Laws, Chapter 161A, Section 23 of the Commonwealth of Massachusetts, 1967 Series A, dated March 1, 1967, 1970 Series A, dated September 1, 1970, 1972 Series A, dated September 1, 1972, and 1974 Series A, dated June 1, 1974 are all payable in annual installments on March 1; interest is payable semiannually on March 1 and September 1.

1967 Series A Bonds - The proceeds of the sale of the 1967 Series A Bonds were required to be used for payment of \$40,000,000 of Bond Anticipation Notes outstanding and the balance of \$70,000,000 was required to be deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the purposes outlined below. The debt outstanding at December 31, 1976 and 1975 is as follows:

<u>Purpose</u>	<u>First Principal Payment</u>	<u>Year of Maturity</u>	<u>Approximate Annual Payment</u>	<u>Average Interest Rate</u>	<u>1976</u>	<u>1975</u>
Express service transportation facilities	1969	2007	\$1,900,000	3.78%	\$58,900,000	\$60,800,000
Agreement with railroads	1968	1982	325,000	3.75	2,075,000	2,400,000
Buses and other purposes	1968	1979	325,000	3.75	975,000	1,300,000
Local service transportation facilities	1969	2007	50,000	3.78	1,550,000	1,600,000
Capital cost of certain transportation facilities including yards, shops and rolling stock	1969	2007	650,000	3.78	<u>20,150,000</u>	<u>20,800,000</u>
					<u>\$83,650,000</u>	<u>\$86,900,000</u>

1970 Series A Bonds - The proceeds of the sale of the 1970 Series A Bonds were required to be used for payment of \$5,365,000 of Bond Anticipation Notes outstanding and the balance of \$61,500,000 was required to be deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the purposes outlined below. The debt outstanding at December 31, 1976 and 1975 is as follows:

<u>Purpose</u>	<u>First Principal Payment</u>	<u>Year of Maturity</u>	<u>Approximate Annual Payment</u>	<u>Average Interest Rate</u>	<u>1976</u>	<u>1975</u>
Express service transportation facilities	1971	2010	\$1,540,000	6.32%	\$52,260,000	\$53,800,000
Buses and other purposes	1971	1982	295,000	6.00	1,730,000	2,025,000
Purchase and improvement of the Cambridge Subway	1971	1980	185,000	6.00	<u>740,000</u>	<u>925,000</u>
					<u>\$54,730,000</u>	<u>\$56,750,000</u>

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF BONDS PAYABLE

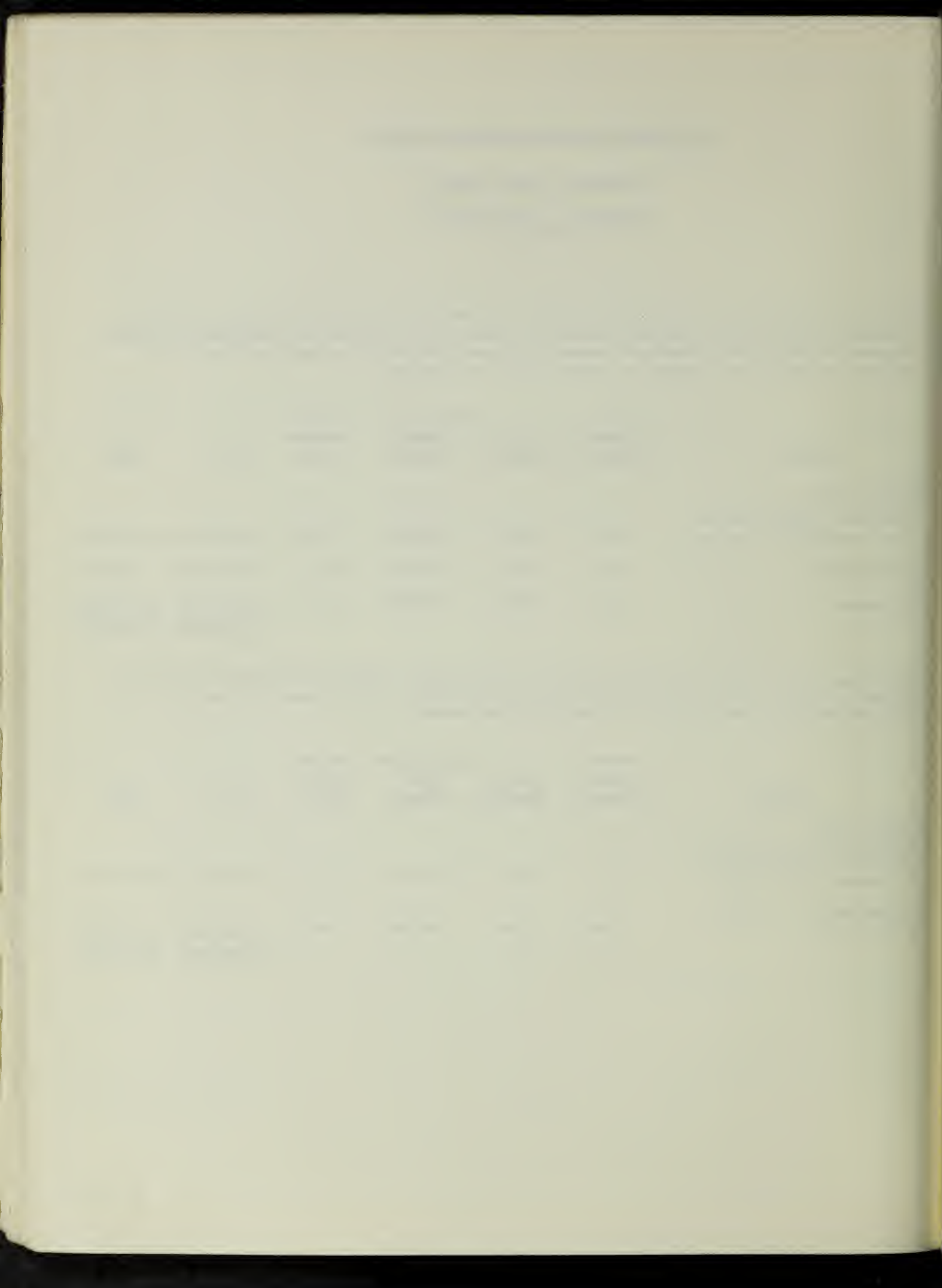
DECEMBER 31, 1976 AND 1975
(Continued)

1972 Series A Bonds - The proceeds of the sale of the 1972 Series A Bonds were used for payment of \$8,000,000 of Bond Anticipation Notes and the balance of \$32,000,000 was deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the purposes outlined below. The debt outstanding at December 31, 1976 and 1975 is as follows:

<u>Purpose</u>	<u>First Principal Payment</u>	<u>Year of Maturity</u>	<u>Approximate Annual Payment</u>	<u>Average Interest Rate</u>	<u>1976</u>	<u>1975</u>
Express service transportation facilities and other capital costs of the transportation system	1973	2012	\$865,000	5.25%	\$31,040,000	\$31,905,000
Bus acquisition	1973	1984	290,000	5.40	2,340,000	2,630,000
Bus garages	1973	1984	170,000	5.40	<u>1,320,000</u>	<u>1,490,000</u>
					<u>\$34,700,000</u>	<u>\$36,025,000</u>

1974 Series A Bonds - The proceeds of the sale of 1974 Series A Bonds were deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the purposes outlined below. The debt outstanding at December 31, 1976 and 1975 is as follows:

<u>Purpose</u>	<u>First Principal Payment</u>	<u>Year of Maturity</u>	<u>Approximate Annual Payment</u>	<u>Average Interest Rate</u>	<u>1976</u>	<u>1975</u>
Express service transportation facilities and other capital costs of the transportation system	1975	2014	\$1,800,000	6.53%	\$67,800,000	\$69,600,000
Bus and trackless trolley acquisition	1975	1986	300,000	7.00	<u>3,000,000</u>	<u>3,300,000</u>
					<u>\$70,800,000</u>	<u>\$72,900,000</u>



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

STATEMENT OF BONDS PAYABLE

DECEMBER 31, 1976 AND 1975
(Continued)

	<u>1976</u>	<u>1975</u>
Metropolitan Transit Authority Bond, payable in semiannual installments of \$500,000 to December, 2020 -- Interest payable is the interest payable by the Boston Metropolitan District on their contra debt and refunding issues, which for the years ended December 31, 1976 was 4.43% and for December 31, 1975 was 4.18%.	\$43,918,372	\$44,918,372

Rapid Transit Bond, payable in annual installments of \$536,259 to November, 2024 -- Interest is the actual interest on the City of Boston Transit Debt and refunding issues less income collected on the City's transit debt sinking fund, which for the years ended December 31, 1976 was 4.35% and for December 31, 1975 was 3.91%.	\$25,740,445	\$26,276,704
--	--------------	--------------

Equipment Serial Bonds:

<u>Year of Maturity</u>	<u>Approximate Annual Payment</u>	<u>Interest Rate</u>		
1977	\$219,000	3.00%	219,000	438,000
1978	176,000	3.00	350,000	526,000
1981	127,000	1.50	635,000	762,000
1987	128,000	2.90	1,402,000	1,530,000
1988	131,000	2.90	1,572,000	1,703,000
1993	169,000	3.00	2,873,000	3,042,000
1993	100,000	3.20	1,700,000	1,800,000
	<u>\$1,050,000</u>		<u>\$8,751,000</u>	<u>\$9,801,000</u>

THE HISTORY OF THE

REIGN OF

CHARLES THE FIRST

BY

JOHN BURNET, BISHOP OF SALISBURY, AND
OF THE CHURCH OF ENGLAND;
AND
OF THE CHURCH OF SCOTLAND;
BY
JOHN BURNET, BISHOP OF SALISBURY, AND
OF THE CHURCH OF ENGLAND;
AND
OF THE CHURCH OF SCOTLAND;

THE SECOND EDITION, CORRECTED.
LONDON,
Printed by J. Streater, at the Sign of the Gun, in St. Dunstons Church-yard, near St. Dunstons Church, in the County of Middlesex;
1693.

THE HISTORY OF THE
REIGN OF
CHARLES THE FIRST
BY
JOHN BURNET, BISHOP OF SALISBURY, AND
OF THE CHURCH OF ENGLAND;
AND
OF THE CHURCH OF SCOTLAND;
BY
JOHN BURNET, BISHOP OF SALISBURY, AND
OF THE CHURCH OF ENGLAND;
AND
OF THE CHURCH OF SCOTLAND;

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

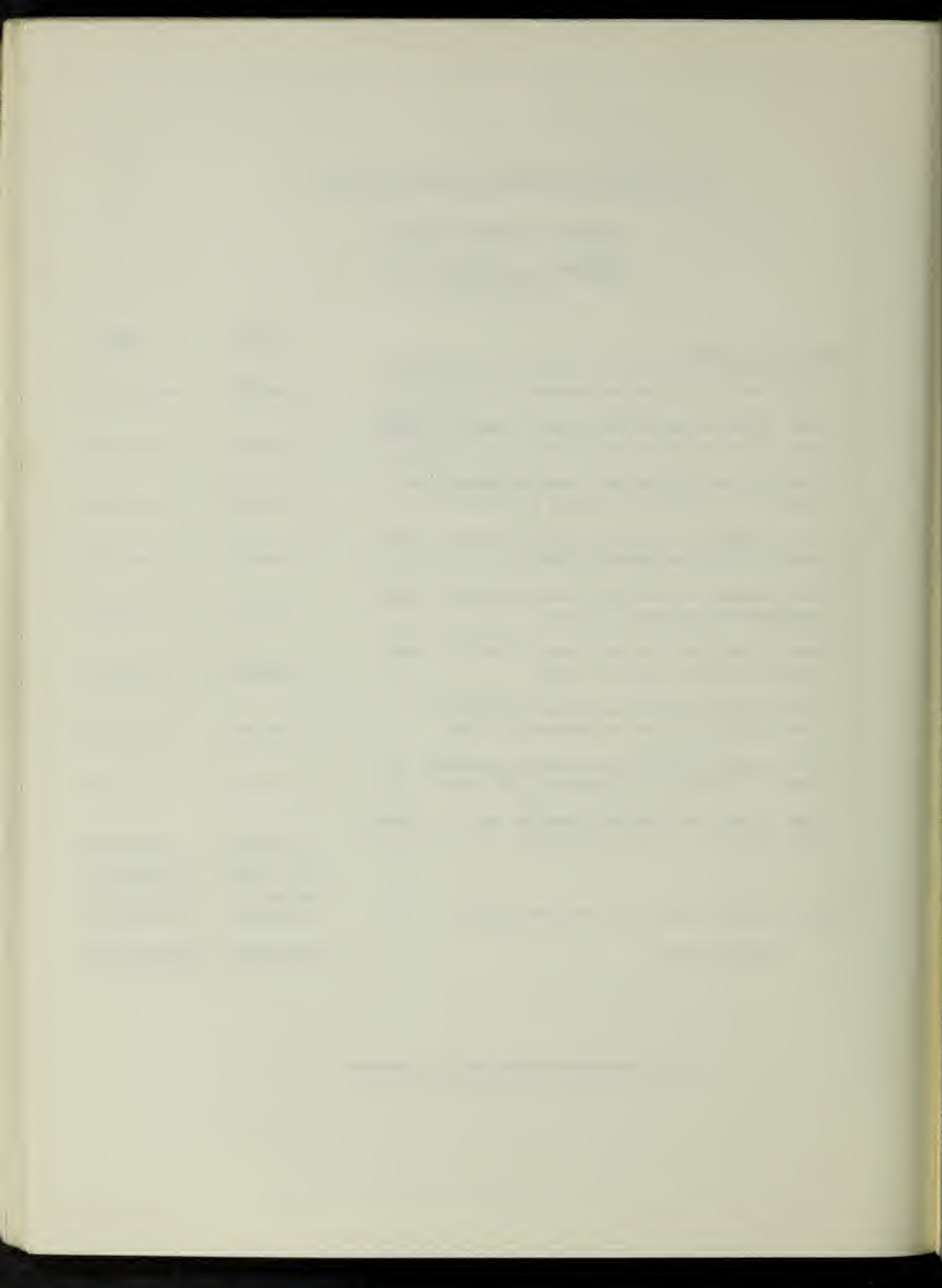
STATEMENT OF BONDS PAYABLE

DECEMBER 31, 1976 AND 1975

(Continued)

	<u>1976</u>	<u>1975</u>
Construction Bonds:		
2.00%, payable \$102,000 per annum to November 21, 1979, and \$4,590,000 on November 25, 1979	\$4,896,000	\$4,998,000
1.50%, payable \$84,333 per annum to March 1, 1981, and \$3,781,667 on March 1, 1981	4,203,333	4,287,667
2.10%, payable \$22,000 per annum to January 15, 1982, and \$990,000 on January 15, 1982	1,122,000	1,144,000
2.75%, payable \$47,000 per annum to March 1, 1983, and \$2,115,000 on March 1, 1983	2,444,000	2,491,000
2.30%, payable \$10,000 per annum to March 1, 1984, and \$450,000 on March 1, 1984	530,000	540,000
3.00%, payable \$55,000 per annum to July 1, 1988, and \$2,475,000 on July 1, 1988	3,135,000	3,190,000
3.60%, payable \$69,667 per annum to February 1, 1989, and \$3,135,000 on February 1, 1989	4,040,667	4,110,333
3.50%, payable \$19,000 per annum to September 15, 1990, and \$855,000 on September 15, 1990	1,121,000	1,140,000
3.20%, payable \$40,000 per annum to April 15, 1993, and \$1,800,000 on April 15, 1993	2,480,000	2,520,000
	<u>\$23,972,000</u>	<u>\$24,421,000</u>
	\$346,261,817	\$357,992,076
Less - Current maturities of bonds payable	<u>11,729,259</u>	<u>11,730,259</u>
Bonds payable	<u>\$334,532,558</u>	<u>\$346,261,817</u>

The accompanying notes are an integral
part of these financial statements.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(1) Summary of Significant Accounting Policies

(a) Transportation Property

Transportation property is stated at historical cost. Such costs may include MBTA labor costs for employees working on capital projects plus related fringe benefits and an allocated share of general and administrative costs. The cost of funds required to finance the expansion of the transportation system is expensed currently.

(b) Depreciation

Depreciation is provided in the accounts based on the straight-line method at rates which are designed to amortize the original cost of the property over its estimated useful life. The major categories of transportation property and the depreciation rates used on the depreciable portion of the property for the years ended December 31, 1976 and 1975 are:

	Rates			Cost	
	Low	High	Average	1976	1975
Ways and structures	1.23%	10.00%	2.03%	\$414,689,941	\$351,086,762
Equipment	2.00%	18.00%	4.85%	128,075,405	117,774,288
Land	-	-	-	38,584,730	38,584,730
				<u>\$581,350,076</u>	<u>\$507,445,780</u>

(c) Deferred Charges

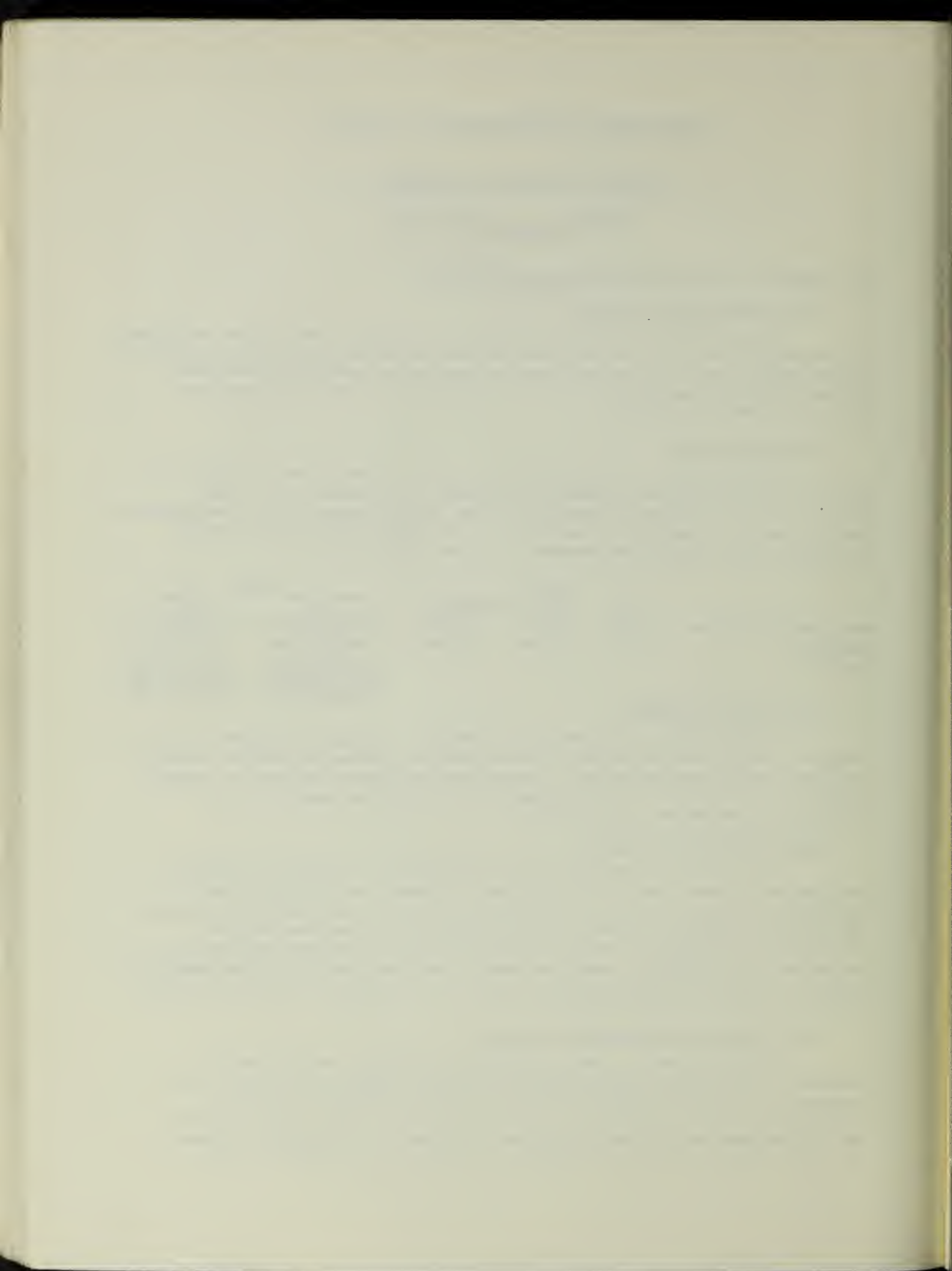
Certain costs incurred by the Authority, primarily related to the expansion and modernization of the transportation system, as further described in Note 9, have been capitalized. These costs are then amortized by charges to cost of service over the future periods in which the benefit to the Authority is estimated to be realized.

(d) Injuries and Damages

In 1975, the Authority was a self-insurer on claims for injuries and damages to the extent of \$100,000 per accident. In 1976, this self-insurance limit was increased to \$1,000,000 per accident. Insurance coverage is carried on claims in excess of that amount up to a maximum limit of \$15,100,000 per accident. The Authority accounts for injuries and damages by charges to operating expenses as payments are made except for the establishment of a fund of \$250,000 in 1976 because of the change in the self-insurance limit from \$100,000 to \$1,000,000.

(e) Workmen's Compensation Insurance

Effective May 1, 1965, the Authority became a self-insurer on workmen's compensation claims under the workmen's compensation laws of the Commonwealth of Massachusetts to the extent of \$50,000 per occurrence. Insurance coverage is carried on each occurrence in excess of that amount up to a maximum limit of \$4,050,000 per occurrence. The Authority accounts for these claims by charges to operating expenses as payments are made.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(1) Summary of Significant Accounting Policies (Continued)

(f) Unreimbursed Cost of Service

The legislative act under which the Massachusetts Bay Transportation Authority was established provides, among other things, that the Commonwealth of Massachusetts shall reimburse the Authority for the "net cost of service" as defined. Certain of these amounts reimbursed are then assessed to the 79 cities and towns constituting the Authority. The "net cost of service", as defined, includes a charge equal to the payments made on long-term debt during the period, and does not include a charge for depreciation and certain amortization. For financial reporting purposes however, the Authority follows the generally accepted method of depreciating and amortizing the cost of assets over their estimated useful lives.

The cumulative excess of depreciation and amortization charges over payments made on long-term debt is charged to the unreimbursed cost of service account and is recovered in years when payments made on long-term debt exceed depreciation and amortization. During the year ended December 31, 1976, depreciation and amortization charges exceeded payments on long-term debt by \$4,498,811. In 1975, payments exceeded depreciation and amortization charges by \$137,457. The excess of depreciation and amortization charges over payments in 1976 is due primarily to the start of depreciation charges on construction projects completed and put into service during the year.

In addition, the "net cost of service" as defined does not include charges for interest accrued on the Loans Payable to the Federal Department of Transportation (\$1,324,238 in 1976 and \$1,246,659 in 1975) (Note 11). However, for financial reporting purposes, these amounts have been charged to cost of service, in accordance with generally accepted accounting principles. Interest accrued will be included in "net cost of service" assessable to the cities and towns in the year it is paid.

(g) Grants

The Authority receives capital expansion grants from certain governmental agencies (see Note 8) to be used for various purposes connected with the planning, modernization and expansion of transportation facilities. These grants are deferred until such time as the related facilities are put into service. The credits are then amortized over the estimated useful life of the assets as a reduction of Unreimbursed Cost of Service. As of December 31, 1976, the Authority had requisitioned but not received capital grant funds totaling \$10,833,516 which will be reflected on the books when received.

THE HISTORY OF THE

REPUBLIC OF THE UNITED STATES

OF AMERICA

BY

JOHN ADAMS

THE HISTORY OF THE UNITED STATES OF AMERICA, FROM THE FIRST SETTLEMENTS TO THE PRESENT TIME. BY JOHN ADAMS, ESQ. OF THE MASSACHUSETTS BAR. VOL. I. NEW-YORK: PUBLISHED BY J. B. ALLEN, 1790.

THE HISTORY OF THE UNITED STATES OF AMERICA, FROM THE FIRST SETTLEMENTS TO THE PRESENT TIME. BY JOHN ADAMS, ESQ. OF THE MASSACHUSETTS BAR. VOL. II. NEW-YORK: PUBLISHED BY J. B. ALLEN, 1790.

THE HISTORY OF THE UNITED STATES OF AMERICA, FROM THE FIRST SETTLEMENTS TO THE PRESENT TIME. BY JOHN ADAMS, ESQ. OF THE MASSACHUSETTS BAR. VOL. III. NEW-YORK: PUBLISHED BY J. B. ALLEN, 1790.

THE HISTORY OF THE UNITED STATES OF AMERICA, FROM THE FIRST SETTLEMENTS TO THE PRESENT TIME. BY JOHN ADAMS, ESQ. OF THE MASSACHUSETTS BAR. VOL. IV. NEW-YORK: PUBLISHED BY J. B. ALLEN, 1790.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(2) Railroad Commuter Subsidies

Under Chapter 161A Section 3(f) of the General Laws, the Authority may enter into agreements with private transportation companies, railroads and other concerns, providing for joint or cooperative operation of any mass transportation facility and for operation and use of any mass transportation facility and equipment for the account of the Authority. In accordance with these laws, the Authority entered into agreements with the Boston and Maine and Penn Central Railroads and ConRail during 1976 and 1975 for the rendering of transportation service.

The Railroad Revitalization and Regulatory Reform Act of 1976, enacted February 5, 1976, adds a new Section 17 to the Urban Mass Transportation Act of 1964. Section 17 authorizes the Urban Mass Transportation Administration (UMTA) to furnish emergency operating assistance for the continuation of certain passenger rail service operated by ConRail as of April 1, 1976. The amount of Section 17 subsidy available to the Authority is a percentage of the increased costs of continuing passenger service up to a maximum determined by standards set by the Rail Services Planning Office of the Interstate Commerce Commission.

The following percentages apply during the periods indicated:

	<u>Federal Share of Additional Cost</u>
Optional Period I: Sept. 28, 1976 - March 26, 1977	100%
Optional Period II: March 27, 1977 - March 31, 1978	90%
Optional Period III: April 1, 1978 - Sept. 27, 1978	50%

ConRail has provided the required service through March 13, 1977, but no agreement has as yet been reached as to the amount of additional costs which are due to ConRail or the amount which may be received from UMTA under a Section 17 grant. Accordingly, an operating assistance grant and an off-setting accrued expense for the estimated amount of additional costs related to continued passenger service have not been reflected in these financial statements.

In connection with the purchase of certain assets of the Boston and Maine Corporation (B & M) (see Note 11) the Authority entered into a five year operating agreement with the B & M. The Authority has agreed to pay the B & M all direct costs of operating the service, plus an equitable share of indirect costs, joint costs, applicable overhead and an annual incentive payment of ten cents per revenue passenger carried.

In the event that the Advisory Board fails to approve the annual budgetary provision for the service, this agreement shall terminate subject to certain labor protection obligations and liquidated damages in lieu of incentive payments for passengers carried.

The operating subsidy paid or payable by the Authority for commuter rail service amounted to \$17,654,431 in 1976 and \$14,562,764 in 1975.

CONTENTS

Original Articles	1
Editorial	1
Book Reviews	1
Correspondence	1
Obituary	1
Announcements	1
Index	1

Original Articles

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Editorial

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Book Reviews

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Correspondence

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Obituary

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Announcements

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Index

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975
(Continued)

(3) Relocation of Facilities

In April, 1967, the Authority entered into an agreement with the John Fitzgerald Kennedy Library Incorporated, whereby the Authority would relocate certain transportation facilities in order to convey certain properties to the United States and the Library Corporation.

The Commonwealth of Massachusetts appropriated \$6,098,400 to the Authority for the part of the properties conveyed to the United States. In addition, the Authority received \$1,330,112 from the Library Corporation for the remaining part of the properties, totaling \$7,428,512.

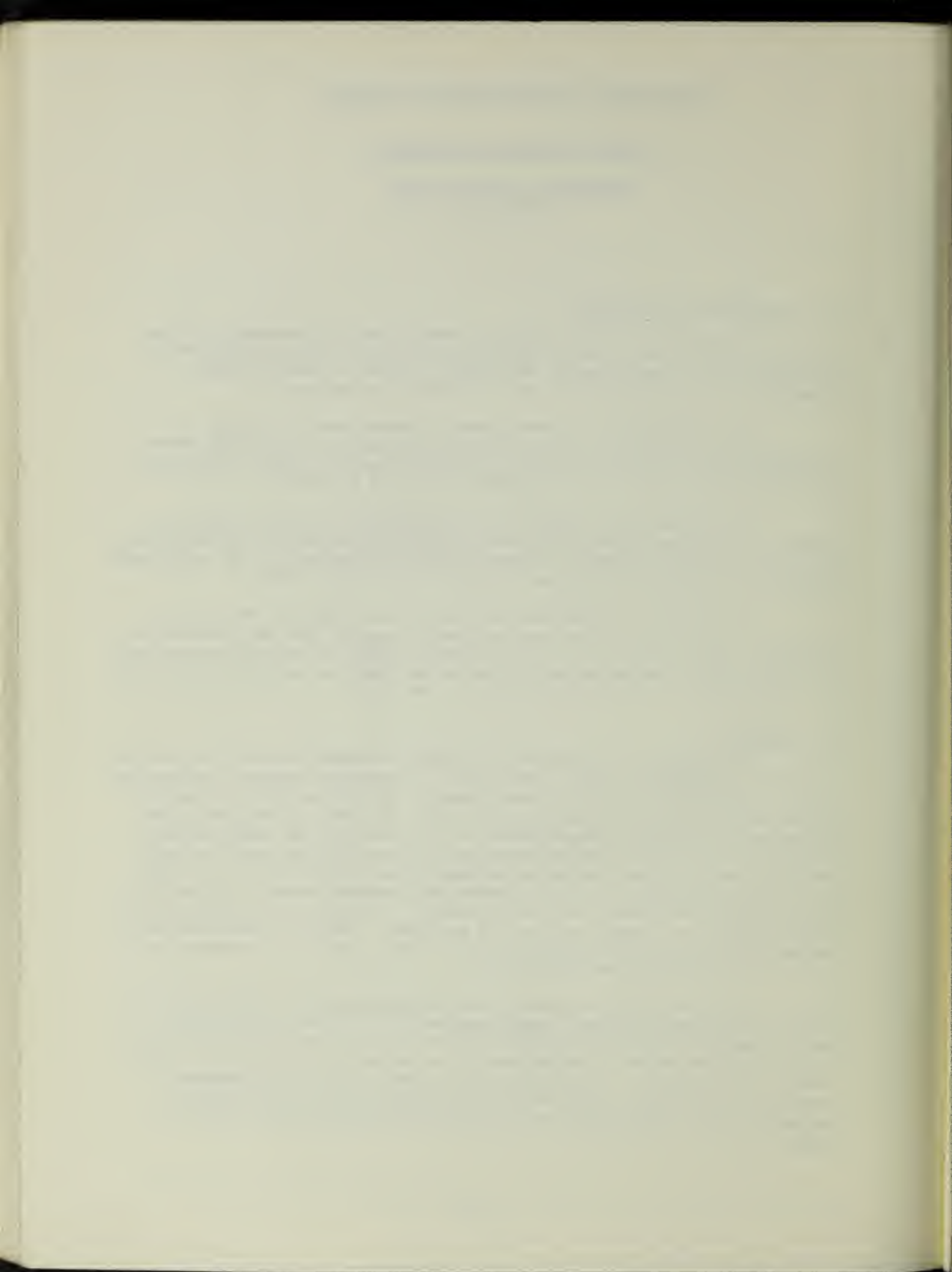
These facilities, having a net book value of \$709,807, have been retired. The amount received in excess of net book value (\$6,718,705), less \$12,000 of expense incurred in connection with the acquisition of replacement property, is included in Deferred Credits on the balance sheet.

In 1975, the replacement facilities were completed and placed in service. Amortization of the deferred credit began in 1975 and amounted to \$167,668 in both 1976 and 1975. The deferred credit is being amortized over a 40 year period (estimated useful life of the facility) and is accounted for as a reduction of the unreimbursed cost of service.

(4) Pension

The Authority has agreed to provide retirement benefits to employees through a contributory pension plan which, as currently amended, requires the payment by the Authority of an amount equal to 11-5/8% of the total payroll of the employees who are members of the plan. The cost of the plan to the Authority for the years ended December 31, 1976 and 1975 was approximately \$14,029,000 and \$13,341,000 respectively. The cost in both years is funded currently and includes interest on unfunded prior service costs, but does not include amortization of the unfunded prior service costs. The Authority is not legally obligated, under the agreement, to fund the actuarial cost of future benefits to present and retired employees. The most recent actuarial valuation was made as of December 31, 1975, and at that time, unfunded prior service costs approximated \$126,800,000.

The actuarially computed value of vested benefits, based upon the most recent actuarial report (dated December 31, 1975) was \$197,615,788. As of December 31, 1975, the market value of the fund assets was \$125,678,817 and the computed value of vested benefits exceeded the market value of fund assets by \$71,936,971. The market value of fund assets as of December 31, 1976 was \$157,582,121. The change in the market value of the fund is primarily due to appreciation in the value of securities held during the year.



MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(4) Pension (Continued)

The Authority has also entered into agreements with certain salaried employees to provide supplemental pension benefits after retirement. In order to receive the benefits, the employee must have at least ten years of service and be eligible for retirement under provisions of the contributory pension plan. The annual supplemental benefit paid is equal to 1% of the employee's average annual compensation received during the last five years of service multiplied by the number of years of service, but limited to an amount which, when added to the benefit available under the contributory pension plan, is not greater than 65% of the employee's five year average annual compensation. This 65% limit was temporarily changed to 70% for certain employees retiring between January 1, 1976 and September 1, 1977. At December 31, 1976 approximately 360 employees were either receiving supplemental benefits or will be eligible to receive them upon retirement. Prior to 1976, the Authority charged cost of service with the supplemental pension expense when it was paid. In 1976, the Authority changed to a policy of charging cost of service for the actuarially determined normal cost, interest on the unfunded prior service costs, and amortization of the unfunded prior service cost over forty years. This change increased the charge for supplemental pension benefits included in 1976 cost of service by approximately \$170,000 to \$541,980 compared with a charge of \$285,395 in 1975.

(5) Long-Term Debt

The legislative act under which the Massachusetts Bay Transportation Authority was established provides among other things, that if at any time any principal or interest is due on any bond or note issued or assumed by the Authority and funds to pay the same are not available, the Commonwealth of Massachusetts shall thereupon pay over to the Authority the amount required to meet such obligations.

(6) Construction Program

The Authority's program for mass transportation within the area constituting the Authority involves future total estimated costs of \$2.2 billion. Financing requirements for the program are expected to be met through various sources, including the issuance by the Authority of long-term debt securities. The remaining financing requirements are expected to be met through Federal transit aid, Federal urban renewal funds, interstate transfer funds and relocation cost reimbursements. Currently, the Authority's authorized debt ceiling is \$464,000,000.

Expenditures on the program through December 31, 1976, have been financed through the issuance of \$290,000,000 of Massachusetts Bay Transportation Authority General Transportation System Bonds, and other sources as mentioned above.

As of December 31, 1976, the Authority has entered into construction commitments amounting to approximately \$171,000,000.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(7) Contract Assistance

The legislative act authorizing the issuance of debt securities currently provides for participation by the Commonwealth of Massachusetts in the payment of annual debt service costs on bonds issued by the Authority as follows: on the \$175,000,000 of bonds issued prior to January 1, 1971, the debt service on \$144,800,000 is eligible for contract assistance at either 90% or 50%, as provided by contract; the annual debt service on \$115,000,000 of bonds issued after January 1, 1971, is eligible for contract assistance at 90%. However, regardless of when issued, contract assistance on debt service will not be extended to over \$332,000,000 at any one time.

In 1975, the Commonwealth enacted legislation which provided the Authority with an additional amount of contract assistance for the cost of service amounting to \$52,370,000. This additional contract assistance is not assessable to the 79 cities and towns constituting the Authority and is applied for assessment purposes as a reduction of all cost items comprising the net cost of service of the Authority. This legislation is pending for 1976 and therefore the Authority has not as yet received additional contract assistance for the cost of service in 1976. If additional contract assistance is received it will reduce the \$125,870,494 to be assessed to the cities and towns constituting the Authority.

In 1973, contract assistance of \$15,051,861 was received by the Authority for funded debt, and in addition \$4,513,946 was paid by the Commonwealth for the Authority as a railroad commuter subsidy (Note 2). These amounts, totaling \$19,565,807 under Chapter 1140 of the Acts of 1973, represent the minimum contract assistance to be paid by the Commonwealth in any subsequent calendar year. In 1976 and 1975, the Authority became eligible for \$20,468,582 and \$20,828,444 respectively. In addition, from July 1, 1975 through June 30, 1976, the Authority received contract assistance under Chapter 859 of the Acts of 1975 amounting to 50% of the net additional cost of providing rail service to certain cities and towns outside the district. Chapter 283 of the Acts of 1976 increased this assistance to 75% of the net additional cost for the period July 1, 1976 through June 30, 1977. The assistance under these Chapters amounted to \$519,082 in 1976 and \$275,563 in 1975.

(8) Grants

Under the Urban Mass Transportation Act of 1964, the Federal Department of Transportation has approved for the Authority grants for capital expansion aggregating \$614,379,517. The Authority has received \$220,230,654 of this amount. These funds have been used by the Authority to purchase new equipment and to modernize and expand mass transportation facilities.

Federal grant amortization credited to the unreimbursed cost of service amounted to \$6,305,902 in 1976 and \$3,763,070 in 1975.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975

(Continued)

(8) Grants (Continued)

Under an agreement between the Boston Redevelopment Authority and the Massachusetts Bay Transportation Authority, the BRA has approved grants aggregating \$12,000,000 in connection with the expansion of mass transportation facilities. The Authority has incurred costs totaling \$11,999,479 related to this agreement. Of this amount the Authority has not as yet been reimbursed by the BRA for \$514,196 which is included in accounts receivable.

During 1975, those facilities for which the BRA grant has partially paid, were opened for public use and capitalized for accounting purposes. In relation to this, BRA grant amortization amounting to \$299,987 in 1976 and \$145,621 in 1975 has been credited to the unreimbursed cost of service.

(9) Deferred Charges

Under the original Railroad Contract Assistance Program the Authority incurred costs which totaled \$5,000,000, which are being amortized to cost of service over fifteen years. The amortization amounted to \$325,000 in both 1976 and 1975, and the unamortized balance at December 31, 1976 was \$2,075,000. In addition, in connection with the Authority's acquisition of the Eastern Mass. Street Railway Company in 1968, costs of \$611,362 were not assigned to tangible assets. These costs are being amortized by charges to cost of service over forty years. Amortization in both 1976 and 1975 amounted to \$15,284 and the unamortized balance at December 31, 1976 was \$489,090.

Certain other deferred charges principally relating to the expansion and modernization of the transportation system are being amortized by charges to cost of service over twenty years. Amortization amounted to \$446,945 in 1976 and \$273,186 in 1975, and the unamortized balance at December 31, 1976 was \$8,837,056.

(10) Supplementary Operating Expense Information

Operating expenses captioned below consist of the following:

	<u>1976</u>	<u>1975</u>
Transportation services -		
Salaries and wages	\$68,608,491	\$65,089,881
Taxes, including payroll taxes	4,001,804	3,873,941
Fuel	2,720,305	2,619,853
Other	4,080,511	4,303,425
	<u>\$79,411,111</u>	<u>\$75,887,100</u>

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975
(Continued)

(10) Supplementary Operation Expense Information (Continued)

	<u>1976</u>	<u>1975</u>
Maintenance -		
Salaries and wages	\$29,625,916	\$28,300,191
Materials and supplies	10,251,571	8,039,433
Taxes, including payroll taxes	1,742,721	1,687,040
	<u>\$41,620,208</u>	<u>\$38,026,664</u>
Electric power -		
Salaries and wages	\$3,718,413	\$3,429,133
Power purchased	2,615,777	2,079,955
Fuel	6,459,738	6,851,478
Taxes, including payroll taxes	193,636	187,449
Other	249,118	279,723
	<u>\$13,236,682</u>	<u>\$12,827,738.</u>

(11) Property Held for Expansion

On January 26, 1973, the Authority purchased 145 miles of the Penn Central Railroad's right of way and related properties in Eastern Massachusetts. This purchase was financed with a \$19.5 million (6.875% interest rate) loan from the Federal Department of Transportation. The property acquired is pledged as security for the loan.

On December 27, 1976, the Authority purchased certain assets of the Boston and Maine Corporation (B & M), including 270 miles of right-of-way, track and related properties and 84 Budd Rail Diesel cars. The cost of \$39.5 million was financed with a \$24,172,750 (8% interest rate) loan from the Federal Department of Transportation secured by the assets purchased, a \$12,261,800 Federal Department of Transportation grant, and \$3,065,450 of local funds.

Both of the Federal Department of Transportation loan agreements provide for the Authority to repay the principal plus accrued interest at the earlier of (a) ten years from date of purchase, (b) the date a grant agreement for actual construction of mass transportation facilities is made, or (c) the date a decision is made not to use the property for mass transportation. The Penn Central agreement also provides that 75% of the principal shall only be payable out of the proceeds from sale of the property, if sold.

Interest totaling \$5,280,801 (\$1,337,128 in 1976 and \$1,340,625 in 1975) has been accrued in the accompanying financial statements at December 31, 1976. However, this interest is not included in "net cost of service" assessable to the 79 cities and towns until the year it is paid.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1976 AND 1975
(Continued)

(12) Federal Assistance (Department of Transportation)

Section 5 of the Urban Mass Transportation Act of 1964, as amended by the National Urban Mass Transportation Act of 1974, provides a six year mass transportation assistance program for urbanized areas apportioned on the basis of a statutory formula. Urbanized areas may use Section 5 funds by developing a specific capital assistance and/or operating assistance projects under the statutory requirements of the Act, as defined. The Authority has been designated the recipient for the Section 5 operating subsidy funds for the Boston Urbanized Area. The projected apportionment for the six year program for the Boston Urbanized Area, limited by the availability of these funds, is as follows:

<u>Period in which assistance becomes available</u>	<u>Projected Amount of Assistance Available</u>
November 26, 1974 - June 30, 1975	\$6.5 Million
July 1, 1975 - June 30, 1976	10.9 "
July 1, 1976 - June 30, 1977	16.9 "
July 1, 1977 - June 30, 1978	16.9 "
July 1, 1978 - June 30, 1979	18.5 "
July 1, 1979 - June 30, 1980	16.9 "
Total	\$86.6 "

During 1976, the Authority received \$11,172,532 of operating assistance funds applied for in prior years, and applied for and received \$16,868,565, the entire amount of operating assistance funds available for the period beginning July 1, 1976.

MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY
FIGURES INDICATE
APPROXIMATE
ONE WAY TRAFFIC
ADMITTED AT
RAPID TRANSIT LINES STATIONS
AND AT
SUBWAY ENTRANCES
DECEMBER 8, 1976

NOTE:
ON DECEMBER 8, 1976 THERE WERE 14,482 HOLDERS OF PREPAID PASSES.
THIS AMOUNTS TO AN ESTIMATED (28,964) PASSENGERS PER DAY.
NOT INCLUDED IN TOTALS BELOW.

